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Dr. Jaafar Pyeman

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Part I
Entrepreneurship

Chapter 1
The Determinants of Technological Innovation Adoption in Malaysian SMEs

Noni Ngisau

Abstract This study used the partial least squares (PLS) and structural equation modeling (SEM) tool to explore the factors to determine the adoption of technological innovation (TI) in the manufacture sector in Malaysian SMEs' businesses. Statistical results confirm that the adoption of technology is positively associated with its size. It also examines on the best predictor pertaining to the TI adoption. The results, besides indicating the suitability of the PLS in statically analysis, have also contributed to a better understanding of technological innovation adoption in Malaysian SMEs' business perspectives, and the findings are useful for policy makers and practitioners to enhance their application given the diversified advance to the small business.

Keywords Technological innovation • Information technology • Diffusion • Small and medium enterprises • Firm size

1.1 Introduction

How does size matter in the adoption of technological innovation (TI)? Adoption of TI has become a critical issue for several reasons. Firstly, while there is a large study that examines the adoption of TI, most studies either ignore firm size or focus exclusively on medium and large firms. That study which is available would suggest that firm size influences positively in innovation (R&D project) financing possibilities because of internal funds availability and stability for larger firms, and R&D is more productive in larger firms [1]. Baumol [2] and Shefer and Frenkel [3] in their study on technology expenditure found that the firm propensity investment in technology is positively associated with its size. Furthermore, the study on the adoption of TI which is available would suggest that small business differs in many key ways from larger firms, namely (according to Arias-Aranda [4]), small firms (1) have simple and highly centralized structures, (2) experience severe financial

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constraints on growth, (3) lack trained personnel resources, and (4) take a short-range management perspective imposed by a volatile competitive environment [2].

Apart from that, many small businesses refuse to apply specific mechanisms to improve their TI even though they can apply for public subsidies because they do not have enough human resource to allocate to the administrative process [3]. These differences may mean that organizational theories and practices on firm adopting and impact of TI which have been developed from research on large businesses may not be applicable to those who operate in the small business sector [4]. Hence, in recent year, we have encountered that a large number of small firms engage with innovation activities. Therefore, this study will thoroughly investigate the degree of association between firm size and the rate of TI adoption.

Secondly, small businesses generally have fewer resources available to devote to TI, they have very little control over forces that are external to the organization, they generally do not have their own separate TI department, and they generally have less formalized planning and control procedures for the adoption and use of TI. Small-business entrepreneurs are thus often placed in the circumstances of knowing that TI can support their business in some way, but they lack the expertise and resources to know how it can be effectively applied. Nevertheless, the study by [5] found that small business and nonhierarchical firms are taking advantage of some of the more sophisticated mechanisms to implement major TI compared to larger and hierarchical firms that have not moved as far away as expected from the simpler implementation mechanisms. Moreover, larger firms increase bureaucracy control, which hinders innovation activity [4].

Finally, in many countries, small businesses comprise over 95 % of the proportion of private business and approximately half of the private workforce, with information technology (IT) being used in majority of these businesses. Small and medium enterprises (SMEs) formed a vital component of the Malaysian economy. In order to sustain their important role, SMEs need to be equipped with new strategy directions and strategic resources such as new skills, knowledge, technology, as well as the continued support from the government. Governments of countries around the world, whether developed or developing, give priority to the development and growth of small and medium enterprises (SMEs) because of their economic importance and potentials. Hence, the study in this area has become critical because of the increasing economic importance of this sector to the economy. Therefore, it is important to carry out the study on the adoption of TI in the small businesses in Malaysia.

1.2   Objective

As noted above, there is little Malaysian empirical study that links to the adoption of TI associated with firm size. To date, there are very few empirical studies that have been carried out to compare and contrast small, medium, and large businesses with respect to the adoption of TI particularly in Malaysia. The aim of this study is

to make some contribution to this area by carrying out an empirical analysis of the relationship between the adoption of TI associated with firm size in the SMEs. Therefore, to undertake the gaps in this study, we will be addressing on what are the determinants of TI adoption and how the TI adoption is associated with the firm size.

1.3   Literature Review

A. *TI Adoption by SMEs*

TI is referring to the process through which technological advances are producing [5] significant technological improvements in product and processes which require an objective improvement in the performance of a product in the way in which it is produced and delivered (Community Innovation Survey-2 by OECD/European Communities). Information technology (IT)/information communication technology (ICT) is technically believed as one of the TI processes which can overcome many of the drawbacks of conventional systems and to save money and time. Besides that, IT/ICT has as its main feature the application of knowledge, and at the same time, it generates new technology [6]. Nevertheless, IT can be a tool in encouraging innovation [7]. Most of technological research has focused on analyzing the determinants of technological adoption. The determinants of technological adoption analysis in previous literature can be categorized into three groups, namely, factors related to companies who are going to use the technology (skill and education level), firm characteristic (domestic or international, firm size, age, etc.), and firm environment (country, culture, and legal system) [6]. Small firm is likely to be engage with adopting TI activities than do the large firm [3]; however, high-tech firms are likely to invest in R&D activities compared to non-high-tech firms. Apart from that, the determinants of the adoption of technologies can be explained through technological diffusion theory which is developed by Robert et al. [8]. The study by Ollo-Lopez and Aramendia-Muneta [9] which is out in the Swiss business sector using technological diffusion theory found that firm size mostly exerts a strong positive influence on adoption, whereby medium-sized firms seem to have the highest propensity to adopt new technology. This study was supported by Shefer and Frenkel [3] and [10] whereby they found that firm size appears to be correlated with the efficiency of technology input, and it plays a larger role in the process and organizational innovations [11].

B. Barriers to Adoption

A barrier to adoption is another category of variables, which is negatively related to technological adoption. There are five main types of such barriers by Ollo-Lopez and Aramendia-Muneta [9]. Firstly, investment cost and unfavorable financial conditions such as high price of technology, large investment requirements, and liquidity constraints [12] are potential barriers to investment in general. Furthermore, technological solutions are often costly, and the results are unpredictable [13], and they perceived that techno- logical adoption is costly compared to its benefits [14]. Secondly, adoption of TI may be hampered by human capital restrictions, generally shortage of highly skilled workers, lack of IT specialists, and lack of training. The availability of skilled workers and the need for implementing reorganizations of the internal functioning of the firm, which act as capital adjustment costs to the extent that these costs are fixed and too high to small- and medium-size firms, appear as barriers to IT investment [15]. Thirdly, most organizations will adopt it only if they see a clear need for it in the organization. Adopters have made the decision strongly believing that the technology will deliver its promised benefits, even though there have been some misgivings about whether all the benefits can really be realized [16]. In fact, "uncertainty of benefits" has been found to be one of the major barriers. Fourth are the managerial barriers on their perception toward technological adoption. Top management decision-making might be influenced by the nature, i.e., cooperative and non-cooperative firm. Cooperative firms have a distinctive culture, based on principles of democracy and equity [17]. The decision to adopt TI should be agreed by all members. Insufficient awareness of managers of the potential gains of technological and top management decision-making influences technological adoption. The critical success of technological implementation is the top management commitment. Technol- ogy adoption, with its significant impact on organizational work practices, possible internal resistance to adoption, and lack of immediate payoffs, clearly requires top management support for adoption [16]. Without their support, many managers may be reluctant to take this high-risk, high-investment decision. Finally, sunk cost barriers may imply and incur high substitution cost firms in order to intensify the use of TI, for example, the insufficient compatibility between new and existing technology.

1.4   Methodology

The study uses secondary data to explore the adoption of TI in manufacturing at the firm level in SMEs' sectors in Malaysia. The study undertakes cross-sectional data sets of the World Bank PICS II[1] (Malaysia Productivity and Investment Climate Survey II carried out by the Department of Statistics and EPU) for years 2004–2006.

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[1] Based on PICS (2007) data, Malaysia's investment climate is benchmarked with the following East Asian countries such as China (2003), Indonesia (2003), the People's Republic of Korea (2005), the Philippines (2003), Thailand (2006), and Vietnam (2005) and some higher middle-income countries such as Turkey (2005), Brazil (2003), and Mexico (2006).

PICS II collects data on a wide range of aspects related to TI, innovation activities, and performances. Firms are asked about various questions on TI over a 3-year period covered by the survey. Therefore, PICS II has a major strength, whereby it collects data for very large sample of the firms, representative of all manufacturing firms across Malaysia.

A. The Methodology PICS II

The sampling frame is extracted from the Central Register of Establishments (SIDAP) maintained by the Department of Statistics, Malaysia. The register is updated using information supplied by the Companies Commission of Malaysia (CCM), Employees Provident Fund (EPF), the 2006 Economic Census data, and several regular surveys or censuses conducted by the Department of Statistics, Malaysia (DOSM). PICS 2007 covers 1,200 establishments in the manufacturing sector from 3,322 total establishments in the frame.

B. Data Analysis

The PICS II raw data has been through "cleaning process"[2] before it can be used in the statistical analysis. From 1,115 data, only 1,102 data are accepted. Overall, the total number of firms covered in this study is as follows:

1. Small ($x < 50$): 498 firms (45.1 %)
2. Medium ($50 <= x < 150$): 313 firms (28.3 %)
3. Large ($x > 150$): 294 firms (26.6 %)

The objective of this study is to explore the internal factors that influenced the adoption of TI in SME sectors by the firm size. TI as suggested by Nieto [18] is used to refer to the process through which technological advances are produced. The innovation process includes a set of activities that contribute to increase the capacity to produce new goods and services (product innovations) or to implement new forms of production (process innovation). To achieve the study goals, the statistical analysis will be processed with simple statistical method. In order to process the statistical analysis, the statistical software application SmartPLS 2.0 [19] has been applied for the utilization of the partial least squares methodology to estimate the theoretical model used in the study. PLS-SEM estimates loadings of the indicator variables for the exogenous constructs based on their prediction of the endogenous constructs, not their shared variance among indicator variables on the

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[2] Cleaning data whereby only useful data are maintained in the analysis. For those respondent that did not indicated the firm size in the questionnaire will be executed from the data set.

same construct. Thus, the loadings in PLS-SEM are in a way their contribution to the path coefficients [20].

C. Variables Used in the Analysis

1. *Employer-Provided Training* (*ET*): The survey ask the CEO, general manager, or business owner whether their employees received any training pertaining to the adoption of the TI.

   H1 Employees training has a significant relationship on the TI adoption.

2. *Firm characteristics* (*FC*): There are four main characteristics in this survey, namely, (1) firm size, (2) regional and (3) firm status establishment[3], and (4) employees skill for the year of 2004 and 2005.

   H2 Firm characteristic has a significant relationship effect on the TI adoption.

3. *Innovation activities* (*IA*): The CEO is asked if there are any innovation activities in the past 3 years. The indicator for innovation activities is measured from what percent of the plant's sales for new products account for in 2006 and what percent of exports did the new product account for in 2006 and the firm planning to introduce new designs/products in the next 2 years.

   H3 Innovation activities have a significant relationship on the TI adoption.

4. *Adoption of TI Process*: The first part of the survey asks the CEO, general manager, or business owner to indicate whether the firm has undertaken any TI process for the last 2 years. The six indicators of TI are as follows:

   (i)   Upgraded machinery and equipment in the last 2 years
   (ii)   Entered new markets due to process improvement in quality or cost
   (iii) Filed any patents/utility models or copyright-protected materials
   (iv) Developed a major new product line
   (v)   Upgraded an existing product line
   (vi) Introduced a new technology that has substantially changed the main product that is produced

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[3] This variable is unique because it is only applied in Malaysia. Firm status establishment refers to firm establishment either Bumiputera or non-Bumiputera. According to Bumiputera-controlled companies (BCCs), 50 % of the equity is owned by Bumiputera shareholder or at least 30 % of its equity is owned by individual Bumiputera shareholder.

D. Statistical Analysis

Statistical analysis was carried out to determine on how a TI adoption is associated with the firm size. From the analysis, large firm is likely to adopt major processes of TI and implement innovation activities followed by medium and small firms. Furthermore, large firms have more skilled employees, and the percentage of employees who received training is greater than the medium and small firms. The firm that doesn't adopt TI (IT-based) was given a list of six factors and asked which of these critical factors had impeded the adoption of TI. The finding suggests that small firms were more likely to having greater percentage in critical important response in the six factors followed by medium and larger firms. The most critical factors are lack of up-to-date information and lack of knowledge and training.

E. Assessment of Goodness of Measures

To assess the reliability of the factors using PLS loading factors, the criterion of 0.50 recommended by Krieg [21, 22] was adopted for retention on the factors. When factor loading is closely examined, two items from construct firm characteristic, namely, firm regional and firm status, one item from construct innovation activities and one item from construct TI, were reported with substandard factor loadings (<0.5). All these four factors were dropped from further analysis (see Fig. 1.1). The final model for further analysis is presented in Fig. 1.2. The objective of this study is to identify the factors influencing the technology innovation adoption by firm size. Statistical measurements are applied to identify the significant relationship between the variables. There are two main criteria used for testing goodness of measures, namely, validity and reliability.

F. Construct Validity

Construct validity testifies to how well the results obtained from the use of the measure fit the theories around which test is designed [23]. To construct validity, factor loading is applied to assess if there are problems with any particular items. As suggested by [24], a cutoff value for loading at 0.5 as significant and dropping out insignificant factors having factor loadings of less than 0.5. Any item with a loading of 0.5 and higher on two or more factors would be a deemed significant cross loading. Table 1.1 shows that all the items measuring a particular construct loaded highly on that construct and loaded lower on the other constructs thus confirming construct validity [25].
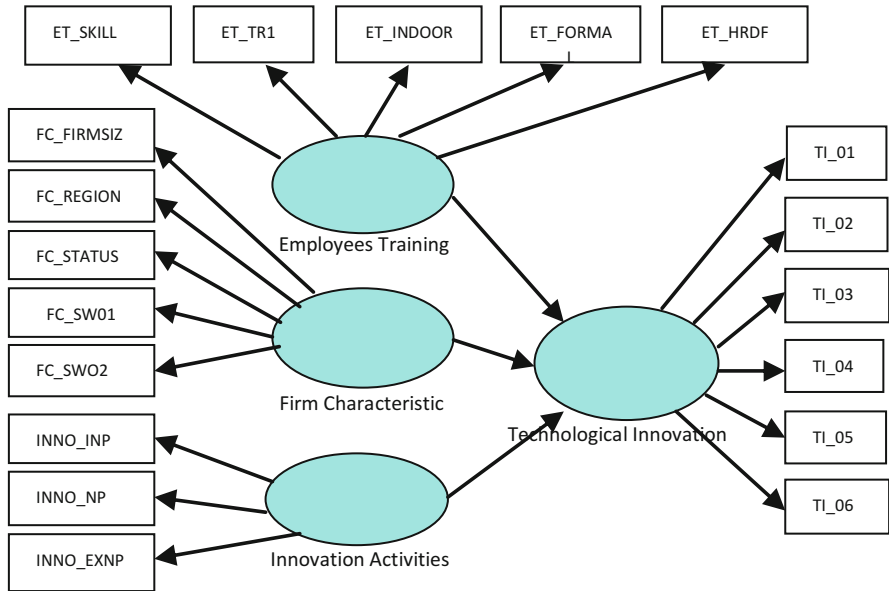
Fig. 1.1 Research model
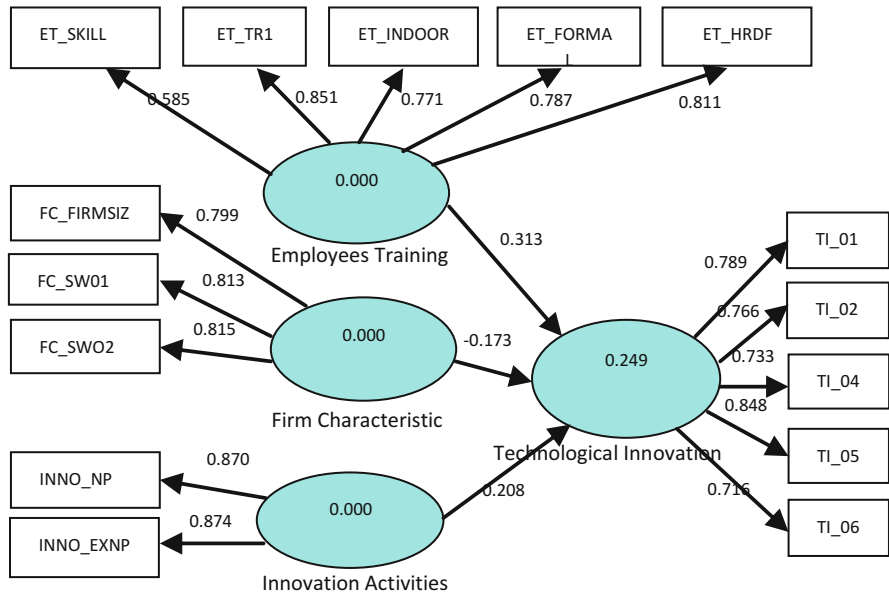
Fig. 1.2 Result of path analysis

Table 1.1 Loadings and cross loading

Measurement item	ET	FC	IA	TI
ET_FORMAL	**0.787**	−0.440	−0.085	0.312
ET_HRDF	**0.811**	−0.498	−0.073	0.322
ET_INDOOR	**0.771**	−0.425	−0.066	0.335
ET_SKILL	**0.585**	−0.339	−0.069	0.295
ET_TR1	**0.851**	−0.439	−0.122	0.382
FC_FIRMSIZE	−0.647	**0.799**	0.071	−0.383
FC_SW01	−0.263	**0.813**	0.013	−0.199
FC_SW02	−0.266	**0.815**	0.011	−0.200
INNO_NP	−0.073	0.023	**0.870**	−0.217
INN_EXNP	−0.119	0.066	**0.874**	−0.221
TI_01	0.386	−0.322	−0.125	**0.789**
TI_02	0.302	−0.216	−0.205	**0.766**
TI_04	0.300	−0.254	−0.281	**0.734**
TI_05	0.394	−0.337	−0.187	**0.848**
TI_06	0.271	−0.240	−0.175	**0.716**

Bold values are loadings for items which are above the recommended value of 0.5

G. Convergent Validity

Results indicated that the construct ranged from 0.850 to 0.880 which exceeded the recommended value of 0.7 [24], and the variance extracted for four scales ranged from 0.595 to 0.761 which is higher than 0.5 (Table 1.2).

Table 1.3 summarizes the results of measurement model. The results show that all the four constructs, namely, employee training, firm characteristic, innovation activities, and TI, are all valid measures of their respective constructs based on their parameter estimates and statistical significance [24].

H. Discriminant Validity

As suggested by Hair et al. [24], the AVE of each latent construct should be higher than the construct's highest squared correlation with any other latent construct (Fornell-Larcker criterion). An indicator's loading should be higher than all of its cross loadings as shown in Table 1.4.

I. Reliability Analysis and Hypotheses Testing

Cronbach's alpha coefficient is used to assess the inter-item consistency of the measurement item. A composite reliability of 0.70 or greater is acceptable. The

Table 1.2 Result of measurement model

Model construct	Measurement item	Loading	CR[a]	AVE[b]
ET	ET_FORMAL	0.787	0.875	0.588
	ET_HRDF	0.811		
	ET_INDOOR	0.771		
	ET_SKILL	0.585		
	ET_TR1	0.851		
FC	FC_FIRMSIZE	0.799	0.850	0.654
	FC_SW01	0.813		
	FC_SW02	0.815		
IA	INNO_NP	0.870	0.864	0.761
	INN_EXNP	0.874		
TI	TI_01	0.789	0.880	0.595
	TI_02	0.766		
	TI_04	0.734		
	TI_05	0.848		
	TI_06	0.716		

[a]Composite reliability (CR) = (square of summation of the factor loading)/{(square of the summation of factor loadings) + (square of the summation of the error variances)}
[b]Average variance extracted (AVE) = (square of summation of the factor loading)/{(summation of the square of the factor loadings) + (summation of the error variances)}

Table 1.3 Summary results of the model construct

Model construct	Measurement item	Standard estimate	t-value
ET	ET_FORMAL	0.787	49.758**
	ET_HRDF	0.811	53.211**
	ET_INDOOR	0.771	44.607**
	ET_SKILL	0.585	24.599**
	ET_TR1	0.851	80.492**
FC	FC_FIRMSIZE	0.799	46.289**
	FC_SW01	0.813	33.518**
	FC_SW02	0.815	32.484**
IA	INNO_NP	0.870	34.510**
	INN_EXNP	0.874	43.326**
TI	TI_01	0.789	54.027**
	TI_02	0.766	45.559**
	TI_04	0.734	45.281**
	TI_05	0.848	85.472**
	TI_06	0.716	37.512**

t-values > 1.96* ($p < 0.05$); t-values > 2.58** ($p < 0.01$)

Table 1.4 Discriminant validity of construct

Constructs	1	2	3	4
1. ET	**0.588**			
2. FC	−0.5604	**0.654**		
3. IA	−0.1104	0.0512	**0.76**	
4. TI	0.4326	−0.359	−0.251	**0.595**

Table 1.5 Path coefficients and hypothesis testing

Hypothesis	Relationship	Coefficient	t-value	Supported
H1	ET ≥TI	0.313	10.111**	Yes
H2	FC ≥TI	−0.173	6.771**	Yes
H3	IA ≥TI	−0.208	6.802**	Yes

$**p < 0.01; *p < 0.05$

result indicates that all alpha values are above 0.6 as suggested by Krieg [22], and the composite factor reliability coefficients of construct ranged from 0.850 to 0.880 (see Table 1.2) which met the standard of 0.70 as suggested by Hulland [26]. As such, the measurements are reliable.

The R^2 value was 0.249 suggesting that 24.9 % of the variance in technological adoption can be explained by employees training, firm characteristic, and innovation activities. Employee training has a direct positive significance ($\beta = 0.313$, $p < 0.01$) to technological adoption, whereas firm characteristic ($\beta = -0.173$, $p < 0.01$) and innovation activities ($\beta = -0.208$, $p < 0.01$) have direct negative significance to technological adoption. In this study, we found that employees' training was the most significant predictor of TI adoption followed by innovation activities and firm characteristic as shown in Table 1.5. The higher the employees training, the higher is TI adoption.

1.5 Discussion and Conclusion

This study supports the conventional views of the influence of independent variables of employee training, firm characteristic, and innovation activities on the determinants of TI. It also examines what best predictor is used to determine TI adoption in the manufacture industries of SMEs in Malaysia using partial least square (PLS) technique analysis. Statistical analysis of the data confirms generally accepted views that all employees training, firm characteristic, and innovation activities have a significant relationship or influence to TI adoption associated by the firm size. The model was shown to be reliable after assessing the reliability values by looking at the Cronbach's alpha values and composite reliability values, and the value is at par with the criteria set up by other established researchers.

Access to PICS II data collected by the Department of Statistics, Malaysia, has allowed a more comprehensive analysis of TI and firm size than has been possible in the past. While the difference is interesting and important, researchers, business owners, and those who set policy in this area also need to be aware of the issues that are shared. The finding of this study confirmed views that employee training has the strongest impact on determining TI adoption. Firm characteristic with regard to firm status and firm regional doesn't have an impact on the TI adoption. These confirm that Bumiputera or non-Bumiputera firm doesn't have an impact on the decision to

adopt TI. From the statistical analysis, it shows that large firm has dominants in adopting TI and conduct innovation activities compared to medium and small firms.

Large firm together with employees greater skill in IT is the most associated with TI adoption. Despite the advantages of technology adoption touted in literature, small firm doesn't adopt TI, and the majority stated that the barrier of adopting is with regard to the lack of up-to-date information and lack of knowledge and training. From the finding, it is clear that firm size has influence on the decision-making in the technological adoption. With respect to adopt TI process, there are a number of important differences associated with firm size. This would suggest that small business owners need to be cognizant on how their firms' size can affect the adoption.

This study offers policy makers, business owners, and researchers factors and areas that need to be considered to enhance competitiveness and sustainability among SMEs in Malaysia. This research should help in the development of a TI process model which incorporates with the firm size as it points out how firm size is similar to or different from its categories.

Finally, this study has its limitations. By using secondary data, it is just possible that the available data may limit the study to explore other factors with regard to theoretical fundamental in the established literature. Future study could perhaps identify and examine other internal and external factors in regard to TI adoption so that adoption issues could be better understood with regard to firm size.

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Chapter 2
Market Orientation Conception on Commercialization of University Research Products with Moderating Effect of Organizational Culture

Nur Syahira Abd Latif, Azizan Abdullah, Nawawi Mohd Jan, and Ahmad Shazeeer Mohamed Thaheer

Abstract The purpose of this study is to investigate the relationship between market orientation and commercialization of university research products with the moderating effect of organizational culture. This is due to a report that indicates that Malaysian public universities score low in commercialization of their research products. Quantitative approach method will be applied in this study with 354 sets of questionnaires distributed to 5 research universities in Malaysia. Since this paper is intended to focus on its conceptual nature, it discusses only the synthesis of literature findings. Limitations are not going to be discussed in the empirical discussion. The conceptual contribution of this paper goes one step further by suggesting the factors that may influence the enhancement of commercialization of university research products in Malaysia.

2.1 Introduction

Nowadays, research commercialization has been receiving significant attention from scholars due to its capability in promoting the growth of a nation economy and in playing a role as future investment of the nation [1, 2]. It is proven from

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developed countries, such as the United States and Canada that are involved in research commercialization activities earlier and have managed to generate more than $1 billion income annually for their respective countries [3].

Realizing the importance of research commercialization, Malaysia sees it as an agent of generating new source of income for the nation. Besides, commercialization of university research products may assist Malaysia to achieve the status of high-income nation by the year 2020. The Malaysian Government has started to create many initiatives to support this activity, namely, establishing policies and programs as well as raising the research and development (R&D) funds to accelerate the commercialization interest. As part of the plan for innovation, the government has allocated RM 1.6 billion in the Eighth Malaysia Plan (2001–2005), appropriated for research, development, and commercialization of technology compared to RM 1 billion during the Seventh Malaysia Plan (1996–2000).

The Malaysian Government expected universities to play a vital role in supporting innovation and technology commercialization. The university role is not only to train and teach undergraduate and postgraduate students but also to be involved in research and development. From these activities, the next conventional role of the university is to commercialize its research products. Furthermore, the university must create start-up or spinout companies [4].

The government has delegated huge responsibility on the universities because of the recognition it has given on the ability of universities to be part of the distribution, creation, and application of knowledge and the capability of universities to be engaged in science-based entrepreneurial activities. These activities will fruitfully produce innovative research and will lead to the successful product commercialization [5]. Since the Ninth Malaysia Plan (2006–2010), RM 3.101 billion of public fund was channeled to research and development (R&D) in the university. Meanwhile, under the Tenth Malaysia Plan (2011–2015), the government again allocated RM 741 million for universities in the first 2 years of the 5-year plan. The allocation was to be managed by the Ministry of Higher Education (MOHE). In line with the new directives, the ministry announced a set of four research and development schemes which are (1) Fundamental Research Grant Scheme (FRGS); (2) Exploratory Research Grant Scheme (ERGS), Long-Term Grant Scheme (LRGS), and Prototype Research Grant Scheme (PRGS); (3) Research Incentive; and (4) MOHE Special Project to utilize the RM 741 million allocations. The increase in the amount in spending of research grants has indicated that the Malaysian Government is serious in walking the talk toward commercializing research products as this is one of the critical agenda in the Malaysia Plan [1].

2.2 Statement of Problem

Commercialization is crucial as it has cost huge spending of the public funds. The government obligates high expectation to the universities to take this prospect to commercialize their research products. However, the commercialization activities in universities were below satisfactory level and very limited [6, 7].

According to the report by the Ministry of Higher Education website [8], the performance on commercialization of university research products was under satisfaction despite having allocated huge budget to fund research and development activities. The report highlighted that out of 313 identified with commercially potential, only 58 products were successfully commercialized from 16 public universities in Malaysia. Meanwhile, the current report illustrated until 2010, in which 20 public universities are involved in commercialization activities. However, the commercialization rate was still low. The number of research and development projects conducted by 20 public universities was 2,059. However, only 442 products were selected as commercially potential products, and about 6 % (125 products) were successfully commercialized. Hence, this has indicated that there is an urgent necessity to address the circumstances and drive the universities to a better performance level [4]. It is identified by Kamisah et al. [7] that a minimum knowledge of market orientation is stipulated as the main obstacles in commercializing university research. As a result, the research products fail to meet market expectation.

This study discusses the importance of the market orientation (MO) in commercializing university research and development products. It has been reported that MO is continuously helping organizations to achieve higher performance and significantly has positive relationship with organizational performance [9–12].

2.3 Literature Review

A. Market Orientation (MO)

MO is defined by Narver and Slater [10] as obtained information regarding customers, competitors, other market factors, inter-functional assessment, shared diagnosis, as well as coordinated action. These lead to core capabilities, competitive advantage, and business performance of an organization. In line with that statement, Buchanan and Vanberg [13] agree that it is important to be familiar with the market and to study the information about competition, customers, demand, and production possibilities because it will be useful in developing creative ideas. Therefore, more researchers have begun to understand about market knowledge as they are able to gather relevant information and transform the knowledge into market-oriented product development.

According to Kamisah et al. [7], market orientation is important to the commercialization of university research products because customers' needs are changing.

Thus, if university researchers are continuously determining what customers' needs and wants are, they will be able to identify new forms of products that are missing in current lines. It will lead to creating new products to the market; hence, university commercialization activities will be successful. Furthermore, the researchers are required to foresee the needs of the consumer in the future. From then on, only the technology or research products develop today by researchers are relevant and not be obsolete. Thus, the understanding and knowledge of future needs is important in market orientation, in order to achieve commercialization. In terms of MO concept, there are different perceptions from various researchers in the literature. According to Jaworski and Kohli [14], MO is an organizational process that involves market intelligence generation, dissemination, and responsiveness to such intelligence across department.

Meanwhile, Narver and Slater [10] provide a different concept where they define MO "as an organizational culture that most effectively and efficiently creates the necessary behaviors for the creation of superior value for buyers and thus continuous superior performance for business." They conceive such culture as focusing on customer orientation, competitor orientation, and inter-functional coordination. Therefore, this research will adapt the market orientation conceptualization. On the other hand, Narver and Slater [10] state that MO is positively related to business performance in all types of markets. This is agreed upon by the majority of the authors such as Affendy et al. [15] as well as Asikhia [16]. Conceptually, there is a strong consensus among the researchers about the fact that the final result of MO will improve an organization performance. Hence, the following proposition is established to show the possible relationship between MO toward commercialization of university research products.

B. Customer Orientation

Narver and Slater [10] state that the heart of market orientation is customer orientation. Customer orientation will continuously help understand the needs of not only the current customers but also potential target customers. They will use that knowledge for creating customer value. Besides focusing on customer value, customer orientation can also lead to superior financial performance when the organization can satisfy their customers' needs and wants. From that, it would motivate the group of satisfied customers and potentially loyal ones who would continually do business with the organization. Thus, it shows that customer orientation has a positive influence on firm innovation and performance [17]. Based on the previous research, the next proposition predicts the relationship between customer orientation and commercialization of university research products.

C. Competitor Orientation

Competitor orientation is the constant understanding of the capabilities and strategies of the principal current and future competitors that use the knowledge in creating superior customer value [16]. In line with that statement, however, there are some different opinions by authors. Competitor orientation is not only to understand the ability and strategies of the organizations' competitors, but also the organization must measure themselves compared to the target competitor by recognizing their own strengths and weaknesses. By identifying their own strengths and weaknesses, it can be the organization's competitive advantage, and it will lead to serving customer better than the competitor. This is very important in a competitive environment, with multiple firms competing for market share [17, 18]. From the previous researches, it shows that competitor orientation is very important toward commercialization of university research products since competitor orientation may create a competitive advantage for a new firm created by university commercialization activity. Perhaps, understanding ability of current and future competitor and identifying its own strengths and weaknesses will be the best strategies for university researcher to enhance the commercialization rate of university research products. Thus, the proposition below expects the relationship between competitor orientation and commercialization of university research products.

D. Inter-functional Coordination

According to Narver and Slater [10], inter-functional coordination is the coordination of all functions in the business that utilizes customer and other market information to create superior value for customers. Organizations with better inter-functional coordination would have better ability to create, retain, and transfer knowledge within the firm. Thus, better inter-functional coordination allows the firm to use knowledge about the customers and competitors more effectively [17]. This study sees that inter-functional coordination plays an important factor in successful commercializing of university research products because researchers can share expertise, knowledge, and experience via inter- or intrafaculty within the university. For example, researchers from the engineering faculty may seek advice from the business faculty on marketing strategies and vice versa. Hence, it may create a competitive advantage for the new product that will be commercialized. Thus, the following proposition predicts the relationship between inter-functional coordination and commercialization of university research products.

E. Commercialization of University Research Products

Nowadays, commercialization of university research products has been receiving much attention due to the ability to help in the growth of the nation's economy. This has resulted in significant policy initiatives such as the Bayh-Dole Act of 1980 in the United States to promote the commercial exploitation of invention that has resulted from government-funded research and similar initiatives in European countries. The US Bayh-Dole Act of 1980 is the most well-known government policy stimulating commercialization. The growth in patenting and licensing activities, observed in US universities in the 1980s and 1990s, is often attributed to the passage of the Bayh-Dole Act in 1980 [19]. In terms of definition, commercialization is a term that bounds up with the word "commerce." This shows that commercialization activities and the products produce from those activities are being the subject of commerce. Commercialization involves the basic assumption that an entity which is the product exists and that it is possible to design and manufacture that particular entity. This entity then needs to be made tradable, for example, subject to buying and selling. The activities that make it happen are called commercialization [20, 21].

F. MO Toward Commercialization of University Research Products

MO has been mostly studied toward business performance. The outcome of MO on business performance has been widely investigated by previous studies in different business contexts, and the result frequently shows positive and significant relationship with the organization performance [10, 14]. Inappropriately, nevertheless, there has been a strong agreement among the previous studies regarding the relationship between MO and business performance. However, there is limited study that has tested the relationship between MO and performance of commercialization university research products. Thus, in this study, the researcher intends to test the relationship between MO and commercialization of university research products.

G. Moderating Effect of Organizational Culture

This study intends to test organizational culture as the moderating factor because according to Ismail et al. [22] "university researcher are facing problem to commercialize their research because they are having much responsibility such as teaching various subject at various levels (undergraduate students, postgraduate students) researching, consulting, supervision of postgraduate research students,

writing research article for publication, holding administrative position, working in government committees and as well trying to innovate and manage spin off venture." From this statement, it shows that Malaysian university's culture still does not support the commercialization and innovation activities with burden on the researchers (who are also at the same time teaching) with bundles of work and responsibility. With having much responsibility, time to focus in commercialization is also being reduced. Even though researchers have high MO, it cannot increase the commercialization due to the unsupported organizational culture.

Organizational culture is very important in determining the organizational performance. According to Lucky et al. [23], organizational culture is a crucial factor to determine the success or failure of entrepreneurial development and business activities. It is because according to Kuratko and Welsch [24] and Abdullah Kaid and Rosli [25], organization that has an effective culture will understand that the competitive advantage does not last forever. Thus, they encourage constant changes and establish never-ending innovation environment. Hence, with organizational culture, it will create uniqueness and inimitability to an organization. In terms of definition, organizational culture can be defined as the values, beliefs, and hidden assumptions that organizational members have in common [26].

In agreement with that statement, Spacapan and Bastic [27] define organizational culture as "the way we do things around here." It reflects the norms and deeply rooted values and beliefs that are shared by people in an organization. Meanwhile, Henrie and Sousa-Poza June [28] come out with different view of organizational culture. It has not been comprehensively studied, due to the reasons that determining organizational culture is not an easy job, and, therefore, there is confusion over the definition of culture. However, in this study, the researchers believe that organizational culture can be a very important factor that will moderate the relationship between MO and commercialization of university researcher products. This is because according to Spacapan and Bastic [27], organizational culture can affect level of entrepreneurship and innovation in an organization through socialization processes. These, in turn, influence individual's behavior, through structures, policies, and procedures that are shaped by the basic values and beliefs of the organizations.

2.4   Proposed Conceptual Framework and Hypothesis Development

From the discussion and extensive literature review, the researchers proposed a conceptual framework to organize and direct the research. The diagram in Fig. 2.1 shows that independent variable is market orientation (MO) components which consist of customer orientation, competitor orientation, and inter-functional coordination. Meanwhile, the dependent variable is commercialization of university research products, and the moderating variable is the organizational culture. Based
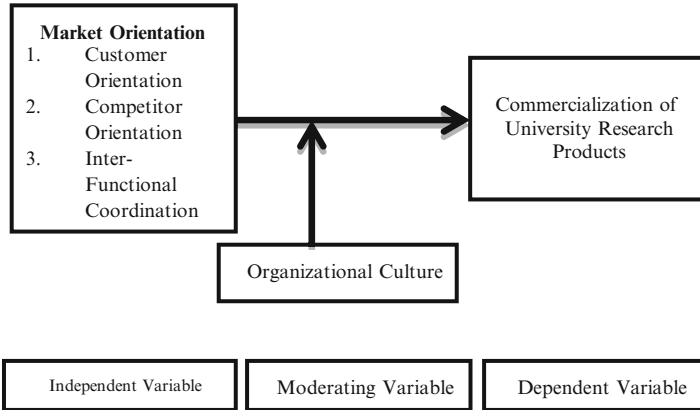
Fig. 2.1 The proposed conceptual framework

on this conceptual framework, the researchers develop the research hypotheses for the study. Thus, from the above discussion, the following hypotheses are being postulated:

Hypothesis 1 There is a positive relationship between market orientation and commercialization of university research products.

Hypothesis 1a There is a positive relationship between customer orientation and commercialization of university research products.

Hypothesis 1b There is a positive relationship between competitor orientation and commercialization of university research products.

Hypothesis 1c There is a positive relationship between inter-functional coordination and commercialization of university research products.

Hypothesis 2 Organizational culture will moderate the relationship between market orientation and commercialization of university research products.

Hypothesis 2a Organizational culture will moderate the customer orientation and commercialization of university research products.

Hypothesis 2b Organizational culture will moderate the competitor orientation and commercialization of university research products.

Hypothesis 2c Organizational culture will moderate the inter-functional coordination and commercialization of university research products.

2.5   Methodology

This research will focus only on universities having the research university (RU) status in Malaysia, namely, Universiti Malaya (UM), Universiti Sains Malaysia (USM), Universiti Kebangsaan Malaysia (UKM), Universiti Putra Malaysia (UPM), and Universiti Teknologi Malaysia (UTM). This is due to the nature of the research university that focuses on research and commercialization activities compared to other universities that focus on teaching and learning. The research will be focusing on science and technology-based faculties. This is due to the data provided by MOHE in the report that indicates the majority of the research having potential to be commercialized is science and technology-based product. Social sciences research has limited potential to be commercialized [8]. Respondents in this research include professors, associate professors, senior lecturers, and lecturers who are actively involved in research and commercialization activities. Based on the universities and MOHE directory, the total number of RU researchers in the science and technology discipline is 4,044 persons. According to Krejcie and Morgan [29] as cited in Sekaran [30], the minimum sample size is 354 respondents of population. Furthermore, Saunders et al. [31] have highlighted that with the number population of 10,000 the sample size of 354 will provide 5 % margin of error. The greater the proportion of the total population sampled, the smaller the margin of error.

In this study, the researcher uses cross-sectional studies where the data will be collected at one time, perhaps over a period of months in order to get the answer from the respondents. Directory of each faculty university's website will be the main source which the researcher attempts to reach the respondents. From the directory, the researcher retrieves the e-mail and telephone number of each respondent, and the questionnaire will be disseminated through personally administered questionnaire. The advantages of using this technique in collecting data are that the researcher is able to establish rapport and also to motivate the respondents to answer the questionnaires. Any doubts that respondents face can be solved immediately by the researcher. Sekaran [30] also states that almost 100 % response rate is ensured when using this technique. The unit of analysis is individual person.

All primary data will be processed and analyzed using statistical package for social sciences (SPSS). The results will be tabulated in the form of descriptive statistic, reliability testing, Pearson's correlation analysis, and multiple regression analysis. Frequency distribution is used to gather the frequencies from all the respondent personal data or classification variables such as age, gender, level of income, position, level of education, and other related information. Meanwhile, reliability testing purpose is to obtain consistency and stability of each variable. Pearson's correlation analysis and multiple regression analysis will be used to test the hypotheses and identify the most contributing factors of independent variables toward commercialization.

2.6 Conclusion

This study will explore the market orientation (MO) among the researchers of research university status in Malaysia. This study will investigate the relationship of MO and commercialization of university research product. It is hoped that this research will contribute to the body of knowledge in terms of theoretical framework and methodology used, and the most important thing is the factors identified that contribute to commercialization of university research products. The result will provide a strong foundation for Malaysian Government and universities to revise and strengthen current policies and strategies to propel the number of research products to be commercialized. It will help the nation attain prosperity and subsequently will be moving forward to achieve the status of high-income nation by 2020.

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Chapter 3
The Customers' Perception Toward Secret Recipe's Reputation by Using the Reptrak™ Model

Nur Farhana Mohd Sah and Zulhamri Abdullah

Abstract Reputation is a key feature of a successful business. To be among the most precious intangible assets to a small business, the excellent reputation is taken into account. However, in order to assess the company reputation, the variety of dimensions of corporate reputation can be perceived in different ways by different customers. This study perceives that these differences are significant to find out customers' perception toward the Secret Recipe's reputation specifically by using seven key dimensions of the Reptrak™ model.

Thus, a survey research was applied in this study. The survey was carried out in three different outlets of Secret Recipe. The questionnaire was comprised of 23 attributes which are divided in 7 key dimensions of the Reptrak™ model while four questions have been asked in order to measure good feeling, trust, esteem, and admiration that customers feel toward a company. This study concluded that by analyzing corporate reputation dimensions, the company would have a better understanding and decide on which reputation dimensions to focus besides ensuring that they still have a place in the customer's heart as well as enhancing their reputation.

Keywords Reputation • Secret Recipe • SME

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3.1 Introduction

Nowadays, SMEs have a significant role in Malaysia's economy with regard to financial growth and also offering a job opportunity. Reported in the SME Annual Report (2006), SMEs lead to the expansion of manufacturing, services, and agriculture industrial sectors, including ICT services in relation to output, value added, employment, and exports. In the year 2011, statistics has proven that SMEs comprised 99.2 % of most businesses and led to 32 % of GDP, as well as 59 % of the overall employment [1]. Moreover, according to Hashim [2], SMEs in Malaysia are distributed in all activity sectors and perform a significant role in the Malaysian economic system. Their contributions caused huge impacts to the Malaysian economy. Reputation is a key feature of a successful business. Besides, it is often being seen as a hidden and most valuable asset toward the company. Branding and reputation in SME businesses are relatively new, even though corporate branding and reputation researches are relatively well established among giant companies such as Kraft Food Inc. [3]. The reputation in small businesses has yet to receive significant attention from researchers studying corporate reputation, with the focus predominantly on large global companies [4]. In today's competitive business environment, small businesses distinctly differ from large ones. Indeed, in small businesses, a more informal and less strategic approach to building a corporate reputation is employed compared to larger businesses [5].

Therefore, there are dissimilarities that exist in the reputation between small and large businesses [6]. There are also barriers to adopt the best practices in branding and corporate reputation due to financial and time constraints and/or a lack of specific branding and communication skills [7]. Different stakeholders might have distinct perceptions of the firm's reputation based upon their needs; on economic, social, as well as individual experience [8, 9]; and even on their special relationships with the company [10]. Seeing a company's corporate reputation is actually associated with people's past experience with a company [11]; a company might have multiple reputations, with a diverse number of attributes for different stakeholder groups [12]. Therefore, the variety of dimensions of corporate reputation can be perceived in different ways by different stakeholders. The different stakeholders may incorporate different weights to these particular dimensions and also use the various elements to assess a company. This study perceives that these differences are significant to find out customers' perception toward Secret Recipe's reputation specifically.

Since the RepTrak™ model has been launched in 2006 by the Reputation Institute, the model has been used to measure the reputation of large organizations and well-known companies such as Apple, Google, and Kraft Food. Therefore, by using the model, this study would like to test the credibility of the RepTrak™ model to measure the reputation in SME industry focusing in the Secret Recipe reputation.

3.2 Background Literature

A. *Definition of Corporate Reputation*

A good reputation can be an asset to an organization, and it is very important and challenging to maintain a good reputation. Basically, the reputation that can be defined as the received "image" is the holistic impression that internal and external stakeholders have to the firm [11]. Keating [13] argued that the corporate reputation is basically about how exactly consumers, suppliers, employees, and even industry sectors see a company. Towards An Integrated View.

Based on the six broad schools of thought, Fombrun and van Riel [14] argue that if one combines the predominant views, then the reputation incorporates both social responsibilities and economic performance. They offer an appropriate definition of corporate reputation, which has been adapted for use in this study:

> A corporate reputation is a collective representation of a firm's past actions and results that describes the firm's ability to deliver valued outcomes to multiple stakeholders. It gauges the firm's relative standing both internally with employees and externally with its stakeholders, in both its competitive and institutional environments. [11]

B. *The Reputation in SME Industry*

Small businesses have received limited attention from those researchers in corporate reputation. In SME industry, the corporate reputation comes from providing value to key stakeholders, such as shareholders, customers, staff, and the wider community [7, 15]. It is socially constructed by actors within and outside the organization [15]. Besides, the business founder shapes or lays the foundations for corporate identity, by way of example to employees, leadership style, and their attitude. Previously, the definition of corporate reputation has been viewed by six broad schools of thought, but referring to the SME sector, there are four different definitions that came from four discourses as stated by Lähdesmäki and Siltaoja [16]. These discourses vary from one another in their illustration of reputation as an economic resource, as a social recognition from the community, as a control mechanism, or as a risk to the owner-manager's personal reputation, hence constructing a reputational framework in the small business context from the owner-managerial perspective.

C. *Measuring the Corporate Reputation*

A wide range of applied measurement tools are created that simulate to assess corporate reputations. Utmost is being identified requiring from one way or another

[14, 17]. The RepTrak™ Pulse is an emotion-based way of measuring the corporate reputation construct that untangles the drivers of corporate reputation from dimensions of the construct itself [18]. According to the Reputation Institute [19], the RepTrak™ Pulse measures the degree of admiration, trust, good feeling, and overall esteem that stakeholders hold about the company. The RepTrak™ Pulse is the beating heart of a company's reputation which provides an overall review of the strength of a company's reputation [20]. The RepTrak™ model comprises of seven dimensions which have been identified from qualitative to quantitative research to explain the reputation of a company globally (Forbes.com). The seven dimensions consist of products/services, innovation, workplace, governance, citizenship, leadership, and financial performance [20].

D. Products/Services

Explained by Cravens et al. [21], the products or services featured by the company signify an example of the key means for value creation as well as establish a brand image by the product/service reputation. The product presents the essential interface with the customers and as key driver of corporate reputation. Once the product does not offer significance to the customer nor incorporate a negative quality association, consequently, it is very difficult to establish a strong corporate reputation.

Branding for SME is vital since it really helps to distinguish its services and makes the company be recognized in the market. It can be a long way to generate a positive image as well as perception in the eyes of the customer. Branding has a great deal to do with market focus and market positioning. It is actually the important message that the company would like to deliver to the market. Undeniably, the message must be supported by strong delivery capabilities. Secret Recipe decided on distinctive product and distinctive marketplace. Only a few players who have cake restaurant inspire customers to walk in with family and even dine inside the outlet. Bakery was a stand for baked cake, and yet Secret Recipe took it a step further by creating bakery as a fine dining establishment and at the same time catering various other foods apart from cakes. Moreover, their very own product is cake. They focus on to represent Secret Recipe as discover for cake. Their specific unique market as well as their product inspires the companies to move further into the food and beverage industry while playing with a few number of business competitors.

E. Financial Performance

A good reputation is a vital asset that enables a firm to generate continuous profitability or sustained excellent financial performance. Along common outlines,

the marketing literature signifies that a good reputation promotes and even enhances sales force efficiency, new product introductions, as well as restoration strategies during crises [17]. A firm's financial reputation provides a persistently strong influence on profit persistence. This simply means an important self-reinforcing dynamic. A number of the things that companies accomplish to increase profitability also boost their reputations [21]. This reputation improvement, in return, will make it easier for companies to sustain outstanding outcomes in the long run.

One of the Secret Recipe's core values is to be dedicated in maximizing the higher standard of performance as well as productivity in all areas of the company. In addition, Secret Recipe is concentrating on result-oriented basis by managing the performance within the company and by using customer response essential to gauge the growth of the company. Secret Recipe is consistently evaluating the performance as well as sets targets by benchmarking to remain competitive in order to move forward for growth.

F. Governance

Gertsen et al. [22] reasoned that issues in governance and accounting generate severe damage to the reputation of a company together with the individual reputations of the top executives. Restoring reputation normally requires real actions; nevertheless, it also needs clear communications about what the company did to address the problems and also what are the plans that the company will do to prevent all these problems from reappearing. Almost every circumstance of failure in governance and also accounting was associated with deficiencies in transparency or perhaps intentionally misleading communications. Because of that, building and maintaining a solid corporate reputation need high levels of transparency [23].

As a leading and largest café chain in Malaysia, with Halal accreditation awarded by Jabatan Kemajuan Islam Malaysia (JAKIM), Secret Recipe is focused on consistently adhering to the requirements of the preparation of all food as well as processing plant in the restaurant according to the regulatory guidelines including HACCP and VHM guidelines.

G. Innovation

The Reputation Institute [19] claimed that innovation is one of the fundamentals used by the company to build a competitive advantage. Therefore, essential platform companies can depend on to distinguish themselves from business competitors which they develop respect, admiration, and trust from stakeholders. Academic researches provide results that a reputation for innovation contributes to several

business and reputational benefits such as customer loyalty, improved favorability, pattern to pay premium price, and perhaps most significantly customer interest [11].

At the same time, Guillerme [24] claimed that almost all business sectors are not created equal in terms of creating excitement. In the current context, the task is undoubtedly much easier for a technology company as compared to a large food and drink company. Although the high-tech industry has created numerous disrupting innovations lately, such as tablets, applications for smartphones, streaming technologies, and many others, yet, the consumer goods industry has actually emphasized on product alterations such as enhanced taste of the foods as well as drinks, varying portion sizes, convenient packaging, and so on [5].

H. Workplace

Essentially, the most dreaded issues that a company owner may ever really ought to deal with are the issues that can potentially arise when a number of employees are dissatisfied. The dissatisfaction experienced by many employees can sometimes spread just like a disease which may inevitably tarnish the company's external reputation simply by poor production, improper customer service, as well as negative feedback or even complaints. Considering that the reputation is truly one of a business's topnotch selling points, it is crucial for business owners to make sure that their employees are happy and satisfied so that they are able to keep on performing at their maximum levels. As soon as the internal reputation of a business is positive, that feeling will be extended to the outside simply by the actions of the employees, which in turn would greatly have an impact on how the company reputation is viewed by those outside of the company.

I. Citizenship

Citizenship in the RepTrak™ model which formulated by Fombrun in partnership with the Reputation Institute claimed stakeholders whether or not they consider a company as environmentally responsible, supporting good reasons, as well as having a positive impact on public. A company with a good corporate citizenship is the company that will get high recognition on these three attributes. Citizenship is finally an essential part of doing business, and it contributes greatly to market the company. A good reputation elicits supportive behaviors from lots of different people who desire to work for, purchase from, as well as invest in companies they like, trust, and admire [8].

J. Leadership

Cited from the Business Times written by Ping [15], in any business, leadership is a central feature; nevertheless, the form which it takes depends remarkably on a firm's stage of growth. For SMEs, this will incorporate taking part in an active position in the management of the company as well as establish a vision to make sure that the employees realize exactly where they are heading. Turner and Mavin [25] mentioned that in large companies, on the other hand, managers might be less involved with the day-to-day management of the company. The managers possess more leadership roles by developing the objectives that the company desires to reach, as well as considering the strategy to be adopted in order to achieve them [18]. However, SME managers are required to manage the company actively and even set directions for the firm. This is actually not an easy task; indeed, it can be a relatively well-known phenomenon that few start-up entrepreneurs have the capabilities and skills which are requirements for them to manage their establishment when it grows beyond the start-up stage [26] (Fig. 3.1).
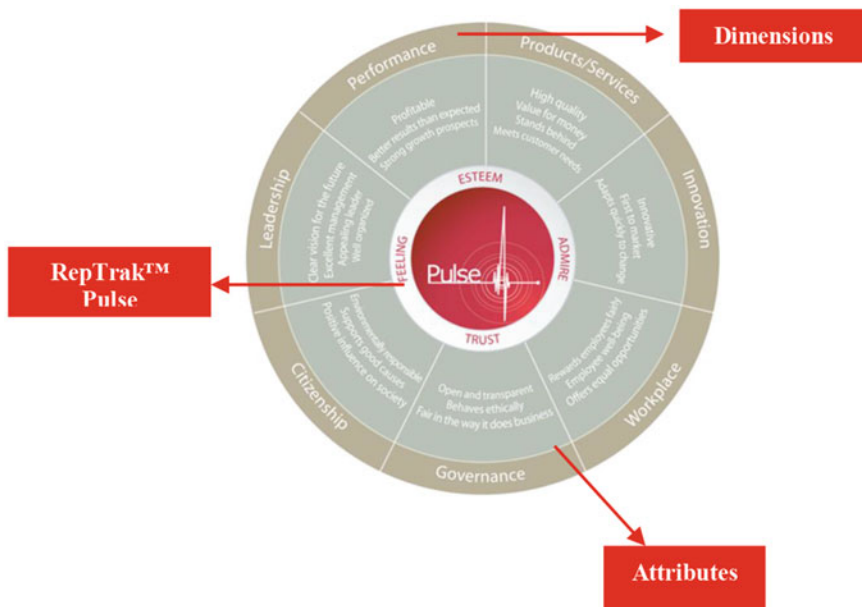
Fig. 3.1 Framework of the RepTrak™ model
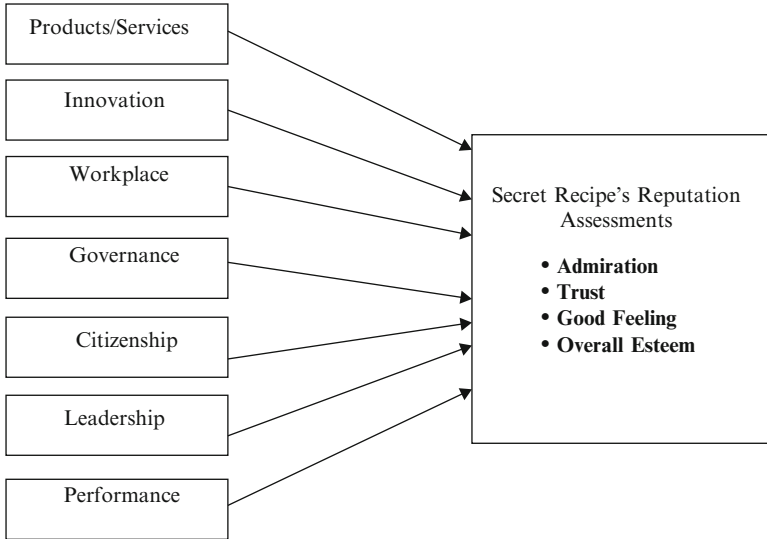
Fig. 3.2 Framework of the RepTrak^{TM} model

3.3 Conceptual Framework

To date, the RepTrak™ model has been used to study only customer perceptions. The robustness and flexibility of the framework, however, suggest a wide range of research applications and a wealth of testable hypotheses across a range of stakeholder groups, making it a valuable starting point for the conceptual model of SME industry reputation introduced here. Moreover, as the framework has only been used to measure the reputation among private sector firms, applying it to the small and medium enterprise context can significantly expand its potential (Fig. 3.2).

3.4 Results and Discussion

The discussion will include finding the respondents' demographic background, the level of customers' perception on three key dimensions (product and services, governance, and financial performance), and Secret Recipe's reputation as well as the relationship between customers' perception on seven key dimensions (product and services, governance, and financial performance) and the Secret Recipe's reputation. The questionnaires have been completed by 280 respondents. Out of the 280 respondents surveyed, 50.7 % were males while 49.3 % were female. Majority of the respondents (36.4 %) were in the age group of 30–39 years old, while only 6.8 % of the respondents were aged more than 50 years old.

The main objective of this study is to examine the relationship between the customers' perception and the corporate reputation of Secret Recipe by using the

seven key dimensions of the RepTrak™ model. The seven key dimensions of reputation are referred to as Secret Recipe's product and services, innovation, workplace environment, governance, citizenship, leadership, and financial performance.

Results of this study demonstrate that customers' perception on Secret Recipe's product and services, innovation, workplace environment, governance, citizenship, leadership, and financial performance were significantly related to the Secret Recipe's reputation. These findings complement with existing studies of the relationship between reputation and products/services, innovation, workplace environment, governance, citizenship, leadership, and financial performance by explicitly articulating the dynamic implications of good reputations. The study signifies that an excellent corporate reputation can lead to a positive impact on customers' purchasing tendencies [7], vendor relationships [23], and sustainability. It can possibly enhance leadership and employee recruitment as well as retention. Conclusively, an outstanding reputation will also be able to boost the market value of a company [17].

Overall, the study has identified the level of customers' perception toward Secret Recipe's product and services, innovation, workplace environment, citizenship, governance, leadership and financial performance, and Secret Recipe's reputation. Based on the overall mean score in Table 3.1, it indicates that the financial performance dimension has the highest level of customers' perception with an overall mean score of 4.03, followed by governance with a mean score of 4.02. In contrast, workplace environment has the lowest level of customers' perception with an overall mean score of 3.50 (Table 3.2).

The analysis illustrates that among the seven key dimensions, financial performance showed the highest strength of relationship and Secret Recipe's reputation. The strength of relationship among the seven key dimensions was positive, between low and moderate relationship. The result from this study was aligned and relevant with the previous studies which agreed that financial performance can affect a company's reputation. This is definitely relevant due to the fact that positive reputations as well as customer satisfaction are usually associated with positive financial returns [27]. A satisfied customer has a tendency to have intensive purchase behavior along with customer retention [28]. This is the fundamental key element for gaining long-term sales revenues as well as business profits. Besides, as stated by Neville et al. [29], a company's financial performance is likely to be directly and significantly linked to corporate reputation.

The dimension of governance that has the lowest association with the Secret Recipe's reputation shows significantly less importance to most customers as compared to other reputation dimensions. The Secret Recipe's customers might have less information toward the transparency, on how the company fairly deals with the stakeholders and either the company behaves ethically or not, and find that this information is less important in their experience in the company. Gertsen et al. [22] mentioned that building and sustaining a solid corporate reputation require high levels of transparency.

Table 3.1 Distribution of customers' perception toward Secret Recipe's seven key dimensions

Dimension	Overall mean scores
Financial performance	4.03
Governance	4.02
Reputation	4.02
Innovation	3.93
Leadership	3.84
Product and services	3.72
Citizenship	3.65
Workplace	3.50

Table 3.2 Relationship between the seven key dimensions and Secret Recipe's reputation

	Reputation	
	Pearson correlation coefficient (r)	Significant value (p)
Financial performance	0.548**	$p < 0.01$
Product and services	0.387**	
Leadership	0.305**	
Workplace environment	0.272**	
Citizenship	0.259**	
Innovation	0.241**	
Governance	0.217**	

**Correlation is significant at the 0.01 level (2 tailed)

From the previous studies, it has been predictable that product and service dimensions would have the highest mean score as well as the strongest relationship with the reputation of Secret Recipe as this company is based on product and services. However, the finding of this study revealed that the strength of the relationship between the customers' perception and Secret Recipe's product and services toward the Secret Recipe's reputation is low relationship. Therefore, this study did not support the finding of Cravens et al. [21] when they claimed that the product presents the essential interface with the customers and as a key driver of the corporate reputation.

The results from this study showed that the financial performance dimension has the highest mean score and moderate relationship compared to other dimensions. Therefore, as stated in the statement of the research problem section and aligned with the results, the variety of dimensions of corporate reputation can be perceived in different ways by different stakeholders. The different stakeholders may incorporate different weights to these particular dimensions and also use the various elements to assess a company.

Therefore, the management team of Secret Recipe needs to give more attention to the different dimensions in order to increase the strength of the Secret Recipe's reputation among the customers. Overall, the finding indicates that financial performance is mostly perceived by the customers with moderate strength of relationship toward the Secret Recipe's reputation.

3.5 Conclusion

In this study, the main objective is to identify the level of customers' perception on the corporate reputation of Secret Recipe by using the seven key dimensions of the RepTrak™ model. The results from the study showed that all the seven key dimensions were positive and significantly related to the Secret Recipe's reputation. Besides, the study found that financial performance is the most significant determinant of the Secret Recipe's reputation followed by product and services, leadership, workplace environment, citizenship, innovation, and governance. Based from this study, it is proven that the Reptrak™ model is credible to measure reputation not only in a larger business but also in an SME business such as Secret Recipe. Food and beverages are probably the biggest indicators of quality that a customer notices. Food quality is not only important to the customers' impressions of the overall restaurant experience but is also important for their health. Food quality as well as the services, innovation of the Secret Recipe, the employees, the fairness of the company in carrying out their business, citizenship, as well as their financial performance which is provided by Secret Recipe must be excellent as it will develop rational bonds among the customers which lead to customer's loyalty.

The importance of the product and service quality dimension cannot be underestimated. Strong branding, product packaging, and design of products are essential in bringing in as well as maintaining customers. It is essential to build capabilities in researching, defining, and even building brand and comprehensive program. After all, the brand, packaging, as well as the design will portray the promise to customers, apart from depicting the business competitive edge against business competitors. On the other hand, the company must assess skills of their employees in order to ensure that they can perform effectively toward the customers. The Secret Recipe needs to improve its training facilities, especially for their front liners in order to enhance the customers' perception toward the company's reputation.

As the study seeks to understand the value of a good corporate reputation, there is a need for additional research. This study is not free of limitations, which introduces future research options. The findings of this study have several implications with regard to future research. As this study was concentrated only on SME, food and beverage company, and customers of the company, it seems reasonable that these findings would extend to firms other than service firms; this should be assessed in future research. The replication of this study could test the seven key dimensions in other service industries and in other cultures. Given its importance, it is clear that companies would want to know how to manage their corporate reputation effectively.

Besides, further study should be carried out by other researchers under the similar topic by assessing and widening the outlets chosen across the countries as Secret Recipe is a franchising company and has a number of outlets outside Malaysia.

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Chapter 4
Examining the Applicability of Outside-In Open Innovation Approaches for Small B-to-B Businesses

Johannes Moser and Georg Hauer

Abstract The purpose of this paper was to investigate and provide practical implications on the applicability of open innovation in small B-to-B businesses (less than 100 employees) and to determine which open innovation approach is most appropriate for small businesses. A qualitative research design based on an interpretive epistemological methodology in the form of six semistructured interviews with senior managers of small B-to-B businesses was applied. It was found that the key competences of absorptive capacity and collaborative capability exist in small B-to-B businesses or was at least perceived to be sufficient to apply open innovation. Customer involvement was established to be the most promising open innovation approach, followed by R&D outsourcing. There was no agreement on whether collaborations with universities could and/or should be applied or not. As with any qualitative research design, generalizability is limited. This paper provides a conceptual framework for further research in the not yet explicitly researched field of applying open innovation in small B-to-B businesses.

Keywords Open innovation • SME • Small B2B • Business model

4.1 Introduction

This paper examines whether and how small B-to-B businesses with less than 100 employees can apply outside-in open innovation (OI) approaches and also provides recommendations for small B-to-B businesses on how to apply OI in relation to which specific approach is the most suitable for small businesses. It sheds light on the question whether small B-to-B businesses are able to apply OI and which OI approach is the best applicable. To do this, it focuses on the opinions of senior managers of small B-to-B businesses. Since OI is said to still be in its infancy by important contributors such as Gassmann et al. [1], this paper is placed in the current discussion of and development toward a new OI paradigm. Thus, it

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arguably also contributes to an academic benefit in providing a conceptual framework. Innovation in general has gained more and more importance for small businesses in their economic development [2]. Increasing competitiveness, growing complexity and risks, as well as the increased knowledge intensity pressure businesses to develop products as fast as possible [3]. To meet these challenges and develop a competitive edge, companies have to respond with adopting new approaches to their innovation strategy [4]. Besides traditional closed innovation concepts such as internal research and development (R&D), companies are shifting toward more openness and flexibility in their innovation process [5, 6]. The importance of small businesses in the innovative environment is unquestioned [7]. Their entrepreneurial innovative spirit arguably indicates that they could benefit from OI. Furthermore, many characteristics of small businesses seem to have the potential to support OI. Their ability to quickly respond to changing market needs and their more clannish structures, e.g., leading to less bureaucracy, are just a few characteristics that enhance the interorganizational trust, communication, and competencies in collaborations and can therefore contribute to a business's innovativeness and thus to OI [8]. Surprisingly, small businesses have not yet been explicitly researched in the context of OI [6, 9]. Most studies on OI so far focused on large companies (e.g., [6, 10–12]). Newer studies only recently examined the applicability in small- and medium-sized enterprises (SMEs). This paper focuses on small B-to-B businesses, which are here defined as businesses with less than 100 employees. Since the growth of small businesses mainly relies on their innovation performance [2], it seems appropriate to focus on whether and how small B-to-B businesses can apply OI as a new opportunity for them to increase their innovation performance. To investigate this, the paper focuses on three key OI approaches – customer involvement, collaborations with universities, and contracted R&D outsourcing.

Absorptive capacity and collaborative capability are defined as the two key competences for applying OI [13]. Absorptive capacity is defined as a business's ability to identify, explore, and apply external knowledge to increase its innovativeness [14–16]. It requires appropriate personnel and financial resources, R&D intensity, and market and technical expertise. Networking capabilities and the organizational and technological infrastructures of a small business are seen as important for its collaborative capacity [13]. Thus, these two key competences defined by the key literature were used as a basis to identify the two levels of OI applicability in small businesses. After investigating the key competences as the first level of OI applicability, the second level focuses on customer involvement, collaborations with universities, and contracted R&D outsourcing to establish whether these approaches are appropriate for small B-to-B businesses.

4.2   Literature Review

The literature review showed that the applicability of OI in small businesses is a surprisingly underresearched topic and thus requires further research and furthermore provides a novel approach for this paper. Since appropriate literature was scarce, relevant and more recent studies were used to determine what is necessary to apply OI in small businesses. For that, studies about SMEs were used to derive assumptions for small businesses. This shows that there is a research gap (see Fig. 4.2) regarding whether and how small businesses can apply OI. In particular, if small businesses have a low absorptive capacity and low collaborative capability (key competences to apply OI) as assumed in the reviewed studies (e.g., [8, 9, 17–19]). Figure 4.1 displays the level of absorptive capacity and collaborative capability in small businesses according to the literature. As illustrated (green), only market and technological expertise enhance the absorptive capacity, whereas the collaborative capability is only enhanced by a small business's organizational infrastructure. The rest of the key factors is lowly pronounced (red) or was not explicitly mentioned in the literature (technological infrastructure).

The second part of the literature review assessed the relevant literature on the research question which OI approach might be best suitable for small businesses and what constraints might emerge. Several studies on SMEs found that customer involvement, collaborations with universities, and contracted R&D outsourcing are
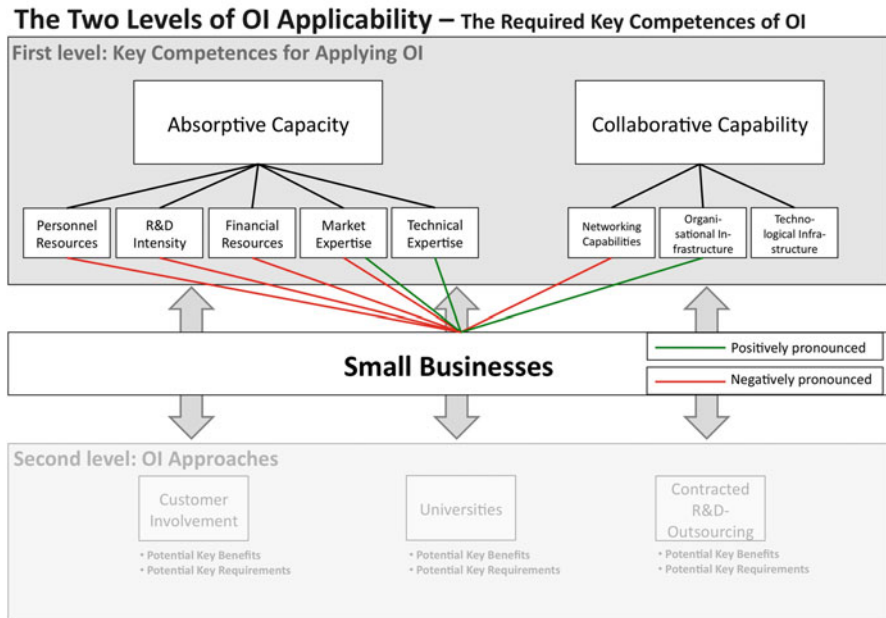
Fig. 4.1 The two levels of OI applicability – the required key competences of OI
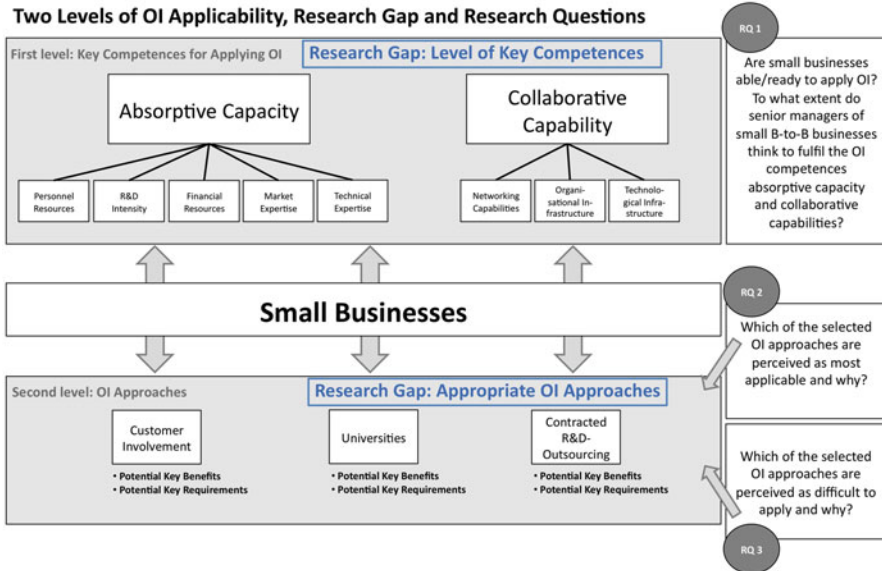
Fig. 4.2 Two levels of OI applicability, research gap, and research questions

important and appropriate approaches for applying OI [7, 19, 20]. These approaches are assumed to be suitable for small businesses. Thus, it was necessary to determine whether the OI approaches of customer involvement, collaborations with universities, and R&D outsourcing are indeed appropriate OI approaches for small businesses. To do this, three research questions were developed to meet the overall aim of the paper, which is to assess whether and how small businesses can apply OI. To facilitate an understanding of the conducted research described in the following chapter, Fig. 4.2 was developed. It displays the two levels of the OI applicability: key competences of OI and OI approaches. The first level demonstrates the influences on absorptive capacity and collaborative capability. Based on the reviewed literature, it is assumed that the characteristics of small businesses may impair or enable some of the competences. It was furthermore found that small businesses seem to have more difficulties than large companies to apply OI. Nevertheless, it was also established that there are certain advantages that small businesses can offer, which arguably might facilitate the applicability of OI.

Figure 4.2 shows that the first level is necessary for and influences the second level. Thus, the two levels are arguably interrelated. Hence, the second level (OI approaches) needs to be linked to the first level in terms of which key competences of the first level are required and existent in small businesses to apply each approach. This will justify the level of applicability of the researched OI approach. Thus, it has to be investigated through primary research whether and to what extent the key competences (first level) are established in small businesses as well as which OI approach (level two) can (hence) be applied. To do this, the

three research questions displayed in Fig. 4.2 have been developed based on the reviewed literature, research, and studies. The first research question focuses on the first level and investigates whether small businesses can apply OI in general by researching if and to what extent they have the required key competences. The second research question then highlights the aspect of which specific OI approach is appropriate for small businesses. The third research question tries to answer the applicability of the predefined OI approaches (customer involvement, R&D outsourcing, and collaborations with universities) in more details.

4.3 Research Approach, Methodology, and Design

This paper used semistructured qualitative exploratory interviews conducted with senior managers of small B-to-B businesses to gain insight into the applicability of OI within small businesses [21]. The interviewed senior managers are further on referred to as participants. A qualitative content analysis was used to analyze the interviews and to most appropriately provide insight into "whether" OI can be applied in small businesses and "how" in relation to appropriate OI approaches [21, 22]. Semistructured interviews were found to be most appropriate to collect the necessary primary data [23, 24] for the underinvestigated topic of OI applicability in small businesses. Using a convenience sampling technique and additionally a purposive sampling strategy ensured an accessible sample that is also directly related to the subject of the primary data collection (ibid). Six senior managers of small B-to-B businesses were chosen as the most appropriate sample since they arguably provide valuable views and input and their expertise knowledge and thus the output can be said to be valuable (ibid). Due to the short time frame and limited resources of this research, it does not strive to develop new theories but to test existing assumptions and develop a conceptual framework for the applicability of OI in small businesses [25].

Choosing semistructured interviews also enabled the researcher to adapt the questions and interview structure to each interview, which allowed a more detailed investigation of the topic [21, 23]. The interview questions were based on the literature and its findings concerning the adaptability and implementation of OI approaches. Thus, it was arguably ensured that the questions were relevant and linked to the overall aim, objectives, and research questions. This also guaranteed that the "whether" and "how" regarding the OI applicability for small businesses could be investigated [21]. A larger number of open questions compared to closed questions were used corresponding to the necessary exploratory nature of the research. To further enable an appropriate comparison and analysis of the interviews, an interview guide was developed, which contained the questions, a predefined but adaptable structure, and an oral consent form and necessary explanations to enable appropriate answers. Before each interview (via telephone and Skype), clear instructions about the context and the objectives were explained to the participants. The interviews were held in German, which arguably improved the

quality of the interviews, since misunderstandings could be avoided and more detailed questions asked due to the fact that all participants were German.

Recording the interviews facilitated the later analysis. By furthermore summarizing the key parts and statements of the participants into a previously developed excel template based on a content analysis, the findings were organized into categories that were predefined based on the reviewed literature, research, and studies. This arguably ensured a higher level of objectivity and is also recommended by Fisher [25] and Saunders et al. [21] who furthermore state that reorganizing the findings into the defined categories allows the identification of patterns. These were further unitized and simplified and later summarized to merge the relevant topics and, by that, establish the key findings [21]. Counting the frequency of similar words and phrases made this easier and also added a quantitative element to the highly qualitative analysis process [21, 22]. These summarized and categorized findings were interpreted and checked several times to establish relevant relationships [26]. This helped to especially establish valuable relationships between the first and second level of OI applicability, which was one of the paper's research objectives.

4.4 Findings and Results

Figure 4.3 displays the key findings in regard to the key competences for applying OI and in particular the OI approaches, which were found to be appropriate. The colors highlight the extent to which each key factor of the key competences is prevailing in small businesses. A green-colored frame means the factor is highly pronounced. An orange-colored frame means that the key factor is moderately pronounced, whereas a red-colored frame means that it is lowly pronounced. Below each key factor, the relevant key findings are listed to further explain why the key factor was found to be either highly, moderately, or lowly pronounced in the interviewed small businesses. Furthermore, below each OI approach in the second level, its key findings are summarized. The frame of the OI approach "collaborations with universities" is dashed, which implies the difficulty to apply this approach and the issue of no clear statement as to whether this approach is appropriate for small businesses or not.

Looking at the findings (as displayed in Fig. 4.3), it can be said that absorptive capacity was seen as quite high, whereas collaborative capability was only moderately pronounced. Even though a few key factors (personnel and financial resources as well as the technological infrastructure and networking capabilities) were relatively lowly pronounced, these were still seen as sufficient to apply OI. Thus, it can be noted that most required competences (personnel and financial resources, market and technical expertise, R&D intensity, organizational structure) to apply OI are given. There were only the networking capabilities with no clear result. Regarding which OI approach is the most attractive and why, it was identified that customer involvement is the most promising OI approach, which is followed by R&D

Overview of Key Findings
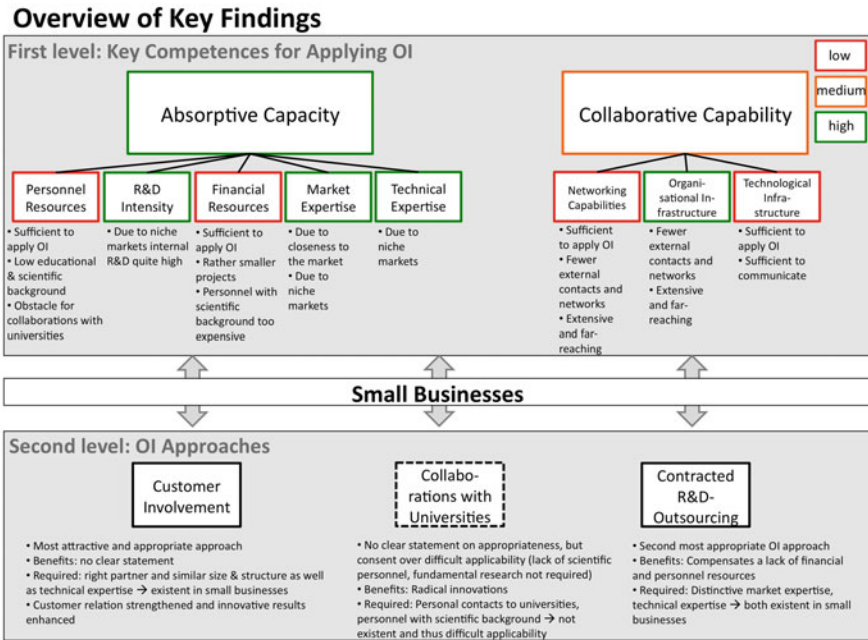
Fig. 4.3 Overview of key findings

outsourcing. There was no agreement whether collaborations with universities could and/or should be applied or not. However, in general, collaborations with universities were seen as difficult to apply due to the missing contacts to universities and the internal lack of personnel resources with an appropriate educational and scientific background. The key findings presented in Fig. 4.3 provide the basis for the results. It also provides the basis for the conceptual framework illustrating the relationships between the key competences for OI and the appropriateness of the three OI approaches. Overall, the findings were largely consistent with the previous research and studies.

A. High Absorptive Capacity and Sufficient Collaborative Capability to Apply OI

Referring to the findings, the absorptive capacity was found to be quite high. Only personnel and financial resources have been indicated to be relatively low. Nevertheless, they were still seen as sufficient to apply OI. Overall, four of the five key factors of absorptive capacity were found to be consistent with the literature. Only R&D intensity was found to be relatively high, which differed from the reviewed research and studies. The collaborative capability was found to be medium but still

sufficient to apply OI. Especially a small business's organizational infrastructure was highlighted as highly appropriate, whereas the networking capabilities were confirmed to be relatively low. It was identified that the technological infrastructure is also relatively lowly pronounced, but does not affect the applicability of OI. This was largely consistent with the reviewed literature.

B. Customer Involvement as the Most Attractive Approach

By saying that customer involvement is a very interesting approach, all participants confirmed the assumed appropriateness (e.g., [20]) of this approach for small businesses. There were no clear statements on the assumed key benefits. It was highlighted that innovative results can be enhanced and customer relations strengthened, which was not explicitly mentioned in the reviewed research and studies. As potential key requirements, the literature identified finding the right partner of similar company size and structure [27] and being able to provide technical expertise (ibid). The participants confirmed that businesses with similar size and structure might be easier and thus more successful to collaborate with than companies with different organizational structures and sizes. The participants also identified the right partner as a key requirement. The participants saw no difficulties in finding the right partner and, in accordance with Garcez et al. [27], furthermore highlighted the significance of trust for successful collaborations. In contrast to the literature, there were no explicit findings about the required technical expertise. However, it was found that technical expertise is high in small businesses, which was seen as a requirement by the previous literature (ibid). Thus, if required, small businesses can arguably provide technical expertise.

C. R&D Outsourcing as an Attractive Approach

R&D outsourcing was found to be the second most appropriate OI approach and furthermore generally interesting and attractive for small businesses, which confirmed the previous findings of, e.g., [7]). Furthermore, the participants confirmed the literature in regard to R&D outsourcing being able to compensate a lack of financial and personnel resources (e.g., [28, 29]). Both aspects were highlighted to be potential key benefits in previous studies and research (ibid). Regarding the potential key requirements, the literature could also be confirmed. One key requirement was to have a distinctive market expertise [28], which small businesses were found to be capable of providing. As described in Sect. 4.3 above, a high market expertise can be provided among others, since they work in niche markets. This was furthermore consistent with [28]), who highlighted the same. Furthermore, it was confirmed that technical expertise is required and can also be provided [30]. Both market and technical expertise were seen as major requirements but not as

constraints for small businesses to apply OI, which was not explicitly mentioned in the reviewed literature. In conclusion, it can be summarized that the participants highlighted that the general applicability of R&D outsourcing is given and that it is thus a very interesting and appropriate OI approach for small businesses.

D. No Clear Statement on Collaborations with Universities

In contrast to the assumed appropriateness of collaborations with universities (e.g., [20]), the participants made no clear statements about the latter. Nevertheless, participants highlighted several requirements. This indicates that they were generally interested in collaborations with universities but were aware or even scared of potential difficulties to apply this approach. In contrast to the literature (ibid), it was found that collaborations with universities are less attractive for small businesses due to the perceived difficulties in applying it. Participants also mentioned the potential key benefit of universities providing a chance to radically innovate (e.g., [27]). On the other hand, the second key benefit highlighted in the literature (e.g., [28]), to gain more knowledge and improve the fundamental technical understanding capabilities, could not explicitly be confirmed. Participants even said that fundamental science was less attractive for small businesses, which can be related to the more practical-oriented fields small businesses are operating in. The abovementioned perceived difficulty of applying this OI approach is related to the below-listed key requirements. Having contrasted the literature with the key findings on the key requirements needed for collaborations with universities, the literature can mainly be confirmed. Reference Teirlink and Spithoven [28] highlighted the importance of personal contacts to universities (networking capabilities) and also appropriate personnel with scientific background (personnel resources). The participants confirmed both key requirements. They furthermore highlighted that both requirements were basically not existent in small businesses, which could have negative effects on the applicability of OI. One reason could be that fewer employees in small businesses have studied at universities (compared to employees in larger companies), which would explain the lower level of educational background and missing contacts to universities.

4.5 Conclusions and Recommendations

Overall, it was found that small businesses possess the discussed key competences to apply OI. Furthermore, it can be concluded that customer involvement and R&D outsourcing are appropriate and promising OI approaches for small businesses. Collaborations with universities on the other hand seem to be difficult to apply. To be sure, more research on this topic would be required. The overall aim was to examine and evaluate whether and how small B-to-B businesses can apply OI

approaches. Since OI is said to still be in its infancy by important contributors such as Gassmann et al. [1], this paper was placed in the current discussion of a newly developing OI paradigm. Thus, it focused on the established research gap and aimed to answer the question of whether small B-to-B businesses are able to apply OI and which OI approach is best applicable. The overall aim was fulfilled, since the conducted interviews produced valuable findings. In particular, it was found that small businesses possess a high absorptive capacity and medium collaborative capabilities to apply OI in general. Particularly, R&D intensity, technical and market expertise, and the organizational infrastructure were highly pronounced. Personnel and financial resources as well as networking capabilities and technological infrastructure were lowly pronounced. However, they were perceived to be sufficient to apply OI. As to establishing how small businesses should apply OI, the identified OI approaches were largely found to be appropriate for small businesses. Customer involvement was identified as the most attractive and appropriate approach. The participants stated that finding the right partner with a similar company size and structure as well as providing technical expertise are essential.

Figure 4.4 overleaf shows the concluded conceptual framework of applying OI in small businesses. It displays the established relationships between the absorptive capacity and collaborative capabilities (level one) and the OI approaches customer involvement, collaborations with universities, and R&D outsourcing (level two). It thus also illustrates the practical implications on how and whether OI can be applied by small businesses.

It can be said that the high technical expertise (level one) contributes toward the applicability of customer involvement and R&D outsourcing (level two). For the
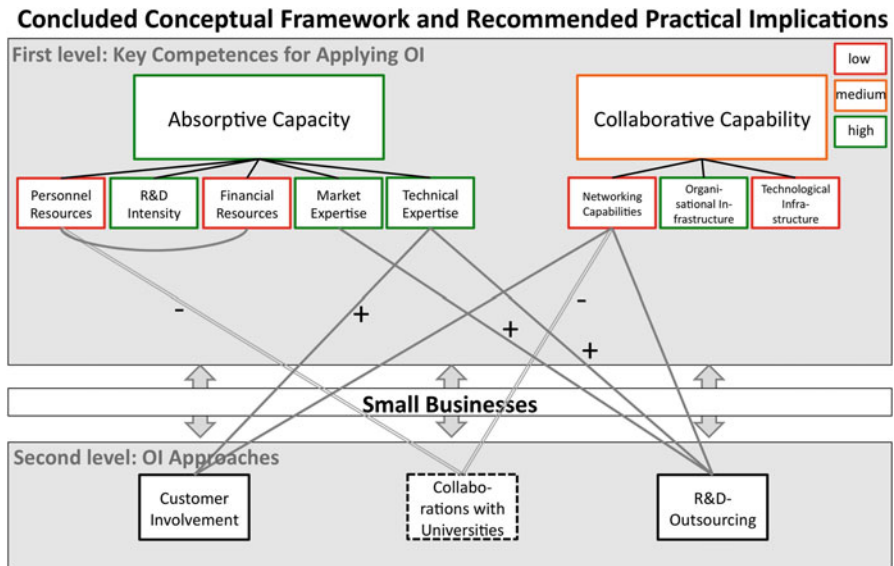
Fig. 4.4 Concluded conceptual framework and recommended practical implications

latter, market expertise is also necessary and was found to be high and therefore facilitates the applicability of R&D outsourcing for small businesses. Another established relationship links the networking capabilities to customer involvement and universities. Whereas the findings indicated that the low networking capabilities would make the application of collaborations with universities difficult (as confirmed by the participants), the perceived intense and far-reaching networks were found to be sufficient and furthermore appropriate for customer involvement. This is because it was found that, in contrast to Hausman [8], who said that finding the right partner is related to a rather large network, the quality of small businesses' networks is more important. Thus, these are perceived as appropriate and sufficient, compensating the lack of networking capabilities and enabling to find the right partner due to the strong customer networks of the small B-to-B businesses. This is also the case for R&D outsourcing. Collaborations with universities require personnel resources with scientific background, which can hardly be provided in small businesses (level one). Furthermore, the missing contacts to universities also coincide with the negatively pronounced networking capabilities in level one. The relationship between financial and personnel resources is also related to the difficult application of collaborations with universities: Since higher-educated personnel require more financial resources, this link shows the interdependency between the two. Overall, the conceptual framework above shows all the established relationships and thus provides an overview of whether and how small businesses can apply OI.

As to specific practical implications on whether and how small businesses should apply OI, it can be concluded that first, they should try to apply OI since the necessary key competences are existent in small businesses. Furthermore, the established key findings and relationships shown in Fig. 4.4 need to be considered, and if possible, the necessary key factors should be improved. Also, it can be recommended to focus on customer involvement and R&D outsourcing and take into account that smaller projects and thus smaller financial investments are appropriate. Also, small businesses should consider improving their personnel and financial resources as well as their technological infrastructures to excel in applying OI in the future. It can be argued that although collaborations with universities were found difficult to apply, these are also important for small businesses in providing new insights and know-how. Hence, the latter is a recommended future research area.

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Chapter 5
Export Readiness Among Small- and Medium-Sized Enterprises in Malaysia

Herwina Rosnan, Shamsul Baharin Saihani, Nuryusmawati Yusoff, and Norzaidi Mohd Daud

Abstract   Increasing the export has been an important agenda to many countries as it contributes to economic growth. Exporting is the most common way to expand business and penetrate international market. The role of SMEs in global market has increased which contribute to economic growth of a country. However, SMEs are facing challenges in entering export markets due to limited resources, competition with multinationals, and many other factors. Hence, SMEs must make sure that they are prepared to enter the export market as to minimize the risks of failure in international market. The objective of this paper is to examine export readiness among SMEs in Malaysia as studies have shown that export readiness influenced export performance. Interviews were conducted on eight manufacturing SMEs in Malaysia to examine their perception and level of export readiness. Among the important dimensions to export readiness are motivational factors, management commitment, product consideration, and financial resources. The findings showed that SMEs are motivated and have the intention to enter international market, but their motivations do not necessarily manifested into commitment to export. This study contributes significantly to the theory of export readiness and extends literature on export readiness among SMEs. Further researches are also suggested.

Keywords   Export readiness • Export • Internationalization • SMEs • Malaysia

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5.1   Introduction

Exporting is one of the foreign entry-mode strategies by firms of all sizes. In general, increased export is translated into economic benefits for a country. According to Tesform and Lutz [21], export earnings contribute to the development and economic growth of many developing countries. For a firm, exporting is seen as a strategy to increase revenue and profit of the company. Through the expansion of the size of the market, firms can achieve economies of scale thereby lowering its unit costs [14].

Although export is an attractive option of market expansion, success depends on the capabilities of firms to maneuver international market. Novice exporters have to ensure that they have all the resources and capabilities to penetrate into foreign market to minimize the risks of failure. Previous studies have linked readiness to export and export performance. For example, Dominguez and Sequeira [4] stated that firm has to establish its readiness before considering an investment in resources to access export market as export readiness explains export performance [6]. Hence, the study of export readiness is important as it ensures firms are prepared prior to entering international market in order to reduce the risks of failure.

Most of the time, export performance is associated with multinational companies which have the resources and capabilities to penetrate into foreign market. Small- and medium-sized enterprises (SMEs) are commonly associated with low level of export capabilities as they relatively have limited resources like low level of research and development and limited human skill development and are facing with high level of international competition. In Malaysia, it was estimated that SMEs' failure rate accounted for 60 % [9]. Hence, understanding export readiness would enable SMEs to identify whether they are ready to penetrate foreign market through exporting to avoid failure.

Exporting is especially challenging for small- and medium-sized firms as they are associated with lacking of resources and capabilities to export compared to large firms. Smaller firms are generally intimidated by the complexities of exporting as they have to deal with different business environment, namely, economic, culture, legal system, language, and many other different environments of doing business [3, 16]. Even in an advanced country like the USA, small firms with less than 500 employees account for only a small percentage of exporting firms as according to US Small Business Administration's report 2001 [17].

In recent years small firms play an important role for many economies. Based on 2011 data, SMEs in Malaysia represent 97.3 % of total business establishment. They contributed 32.5 % to Malaysian economy and recorded a strong GDP growth of 6.8 %. Furthermore, study on SMEs is important as its role to the economy has been increasing which contribute to the growth of a country [15, 22]. Examining export readiness is particularly important for small firms as it also explains pre-export behavior of firms. Hence, this exploratory study is undertaken to examine export readiness among nonexporting SMEs in Malaysia.

5.2   Literature Review

There is no specific definition of export readiness, but previous studies take internationalization readiness to signify export readiness although internationalization activities are not necessarily done through exporting. For example, Liesch and Knight [10] stated that readiness to enter foreign market is determined by knowledge and information of the target market and also the knowledge and information on the most appropriate modes of entry. Meanwhile, Tan et al. [20] defined internationalization readiness as "a firm's preparedness and propensity to commence export activities overseas." In general, export readiness is used to signify that a firm has the characteristics and the potential to enter international market.

Assessing export readiness is vital as studies have linked export readiness with export performance, for example, Ecel et al. [6], Eldik and Viviers [7], and Gerschewski et al. [8]. This would mean the more prepared a firm to export, the better chance to success in international market.

There are many studies that identified factors influencing export readiness of a firm. Eldik and Viviers [7] categorized readiness into four factors, namely, (1) motivational factors, (2) organizational factors, (3) target market considerations, and (4) product consideration. Motivational factors refer to the firms' long-term objective and their intention to expand over the long term by considering export market for business expansion. This motivational factor is described by Maurel [12] as the willingness and desire to export. Organizational factors refer to factors that influence firms to export which include management commitment, international business expertise and staff commitment, funding support or budget allocation to support export activities, and production capabilities. The willingness and desire as explained by Maurel [12] can be manifested into commitment by the management to allocate resources to export activities. Target market consideration is also an important factor as knowledge of specific market to enter minimizes risks of failure in international market. Product considerations refer to whether the products reach international standard. This factor considers whether the firm is capable to attend to product modification that suits international demand, versatile, possess differentiated features, and able to support after sales service. In relation to exporting, resource-based view (RBV) theory supports that success in international market is highly influenced by firm's capabilities and internal resources [12, 13, 18]. Furthermore, Doole et al. [5] emphasized that internal resources of a firm determine its operational readiness in terms of financial, production, marketing, and logistic.

Ecel et al. [6] found that the most important factor to export readiness is financial capabilities. Their study on oilseed export to China suggests that success is highly dependent on financial capability of a firm. This result is consistent with other findings that found that manufacturing SMEs from developing countries failed as a result of lack of financial capability [2, 21].

5.3   Research Methodology

The directory of SME Corporation Malaysia provides the list of all registered SMEs. This study is an exploratory study that examines export readiness among SMEs. SMEs from manufacturing sector were selected based on predetermined characteristics of the firm. The characteristics include nonexporting firm and their willingness to participate in the study. This study is not to achieve representativeness of the firms to the population but rather as a basis to understand export readiness behavior from the perspective of nonexporters. In qualitative study, sample size is not determined statistically, but it is a strategic choice of informants relevant to the study [19]. The number of samples is determined by the data. The data is collected until it reaches "point of redundancy". This means, adding more sample does not contribute to new information but will only lead to data saturation [11]. Hence, data from eight manufacturing firms were collected and analyzed for this study.

This study used semi-structured interview as the instrument for data collection. Respondents who are the owners of the firms were asked on whether they have the intention, motivation, and commitment to become export companies through resource allocation done by the companies.

5.4   Findings and Discussion

The aim of the study is to examine export readiness from the perspective of nonexporting SMEs in Malaysia. This is to identify whether they have the motivation and readiness to export as indicated by effort done toward becoming an export firm.

A. Respondent's Profile

Table 5.1 shows the profiles of SMEs understudy. All respondents are from the manufacturing sector with five firms categorized under small firm and three firms categorized as medium firm. With regard to years of operation, majority of the firms have been in operation for more than 5 years. While in terms of sales turnover, four companies earned between RM250,000 and 10 million, and the other four firms earned between 10 and 25 million.

Table 5.2 shows SMEs' major clients at domestic market which consist of companies from public/government and government-linked companies and also companies from the private sector project. SME 2, SME 5, and SME 6 are categorized as medium-sized firms. Others are small-sized firms with employees between 5 and 50 people.

Table 5.1 Characteristics of SMEs

Characteristics	F	%
Size of firms by no. of employees		
Micro (less than 5)	–	
Small (5–50)	5	62.5
Medium (51–150)	3	37.5
Years of operation		
Less than 5 years	–	
5–10 years	1	12.5
11–15 years	3	37.5
More than 15	4	50
Sales turnover (RM)		
Less than 250,000	–	
Between 250,000 and 10 million	4	50
Between 10 and 25 million	4	50

Table 5.2 Major clients

SME 1	Japanese company (30 %), public sector (40 %), other private sectors (30 %)
SME 2	Energy Berhad (54 %), subcontractor (44 %), others (2 %)
SME 3	Government contracts (60 %), Petroleum Berhad (10 %), private companies (30 %)
SME 4	Government projects (30 %), ministry (40 %), public universities (25 %), government hospitals (5 %)
SME 5	Energy Berhad (59 %), Telco Berhad (28 %), dealers and wholesalers (12.8 %), state government (0.2 %)
SME 6	Energy Berhad (70 %), Telco Berhad (30 %)
SME 7	Private companies (70 %), government-linked companies (10 %), public companies (20 %)
SME 8	Private companies (40 %), government-linked companies (25 %), various private companies (35 %)

The study found that the size of the firms influences export readiness. This is evidenced in Table 5.3 which shows that SME 2, SME 5, and SME 6 are export-ready. Meanwhile, the number of years in operations does not influence firm's readiness to export as indicated in Table 5.3.

B. Export Readiness Among SMEs

Based on previous literature, it was found that the desire and motivation to enter international market to increase revenue and profit are the most important factor to export readiness [6–8, 20]. When asked whether the firms have the intention to penetrate export market, all the eight firms indicated that they have intention to penetrate export market.

Table 5.3 Firm size and number of years in operation

Firm's name	Size (by no. of employees)	Years of operations
SME 1	50	7
SME 2	54	1
SME 3	15	3
SME 4	20	16
SME 5	92	28
SME 6	59	10
SME 7	20	19
SME 8	40	23

The following questions were asked to investigate whether the firms have made investment or directed their resources toward becoming export firms. Initially, the firms were asked whether there are any fund allocation and investments made to achieve export market. Out of eight firms, four stated that they have made investment and ready to venture into export market. While two firms stated that they have made minimal investment by establishing websites and study potential export market. The remaining two firms stated that they have not made any investment to achieve export market. From the interview it was found that SMEs perceived research made on potential export market as very important factors besides company's and product compliance with international standard. Investment is also made in building brand name internationally (by participating in international exhibitions or trade missions or promotions) and the establishment of proper websites.

When asked whether firms have the capacity to enter export market, 50 % of the respondents are confident that they have the capacity to export. These firms mentioned that they have the capacity to adapt, modify, and develop products for international market. Furthermore, the firms mentioned that they have the capacity to establish physical local presence (overseas agent or office) in the foreign market that they wish to enter. On whether the firms have the capabilities to enter foreign market, the same firms are confident that they are ready to enter export market in the near future as the company is knowledgeable of the legal business requirement of the foreign markets it plans to enter.

All the firms are also asked whether they are ready to export their products to the international market. The result shows that five (62.5 %) out of eight firms said that they are ready, while the remaining three said that they are not ready considering the limited resources that they have. The study found that although only 50 % of the companies have made investment and directed their resources toward achieving export market, 62.5 % are confident that they are ready to export.

The study also found that medium-sized firms are more ready to enter international market than small-sized firms. This indicates that firm's size matters on whether the firm is ready to export or otherwise. In conclusion, the findings found only 50 % of the total SMEs interviewed are export ready in which they have high level of commitment and confidence to venture into export activities.

5.5 Conclusions and Recommendations

The study on export readiness is crucial as it offers firms to analyze their ability and level of preparedness before entering export market. With regard to export readiness, this study found that although all SMEs have intention to enter export market, only 50 % translated their intention into actions. Their actions include investing and directing their resources to become export firms. It is also found that most of the firms which are ready to export are from medium-sized firms. However, the number of years in operations does not influence firms' readiness to export.

The study contributes to the literature of export readiness by highlighting factors important to export readiness. Its findings on the factors that influence export readiness are consistent with previous study [6–8, 20]. It also supports previous studies that SMEs faced challenges in terms of financial and nonfinancial resources to compete at international level [1].

This study was an exploratory study to export readiness among nonexporting firms. The findings have indicated the factors influencing export readiness among the nonexporting firms. Future studies need to look into exporting firms to confirm that by being export ready, firms can minimize risks to failure. This is a preliminary study involving a few selected firms. Future studies may want to look at larger samples through questionnaire survey.

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Part II
Management and Marketing

Chapter 6
Members of Parliament (MPs) and Internet Communication in Malaysia: An Empirical Study of Perceived Individual Factors and Continuance of Use

Ahmad Naqiyuddin Bakar and Abdul Rauf Ambali

Abstract An exponential growth of information and communication technologies (ICTs) facilitated by a global convergence of computer networks and system revolution has resulted into an extensive use of Internet technologies. To be sure, the Government, through the Malaysian Parliament, has been aggressive in its initiative in providing the necessary environment to empower the MPs in ICT through various ICT platforms and technologies. This study discusses the impact of Internet technologies on MPs in Malaysia through official or nonofficial (personalize) means of communications. The findings showed that the Internet technologies are well accepted by the MPs and the continuance of use of ICT is positively correlated.

Keywords Internet communication • Members of parliament (MPs) • Individual factor • Continuance of use

6.1   Introduction

Increasing Internet-driven and global digital revolution owing to an explosive growth of computer networks and systems has encouraged members of parliaments (MPs) to continuously immerse themselves in changing their work style, lives, relationships, and services to something newer and better, usually referred to as Internet communication, riding upon the new media technologies. To differentiate themselves as versatile MPs, they need to constantly focus on utilizing ICT as an

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enabler of efficient and effective dealing with their constituent members. It has been acknowledged that information and communication technologies (ICTs) are instrumental in which citizens may be engaged in democratic process [1], over various political issues, the process of public decision making and wider civil society. Similarly, Heeley and Damodaran [2] propose the broader concept of digital inclusion: ICTs empower citizens to go beyond being "users and choosers" of technology to become makers and shapers of the technologies available to them and the rest of society. At the World 2003 Summit on Information Society, the world leaders pledge to support and build nations which are people oriented, inclusive, and development-oriented information society for all, which would enable everyone to access, utilize, and share information and knowledge [3]. Reference [4] suggested that ICT usage among individual MPs can generate important implications for both party organizations (organizational dimension and the legislative institutions (institutional dimension)) through spontaneous virtual dialogue, internal restructuring, and a reduction in hierarchies within respective political parties and might accelerate organizational pluralism by creating new political networks outside the party of the parliamentary sphere. However, very little research has addressed Internet communication from the perspective of MPs in Malaysia.

An innovative use of ICT to deliver more open and transparent democratic decision-making processes has been widely examined within developed nations particularly in the western countries [5–8]. For developing nations like Malaysia, studies on the implications of Internet communication on MPs are still infancy. In its effort to become a more effective and efficient functioning of government, Malaysia has also placed great emphasis on the need for improving services for their citizen, leveraging on the potential of ICT as an enabler. However, despite all the claims that new media technologies are bound to lead to more democratic consequences, ICT have been criticized for neglecting the ways in which "technologies are themselves socially shaped and for conceiving political relationships in an excessively functional and mechanistic fashion that misses the cultural and ideological dynamic of social power" [9, 10]. In addition, some recently published empirical researches suggest a rather dismal picture. For instance, Di Gennaro and Dutton [11] argued that online political participation was reinforcing or even exacerbating existing inequalities in offline political participation by increasing the involvement online among those who are already politically active, thus disadvantaging those from the less educated and lower socioeconomic groups.

Given the importance of Internet communication to elevate the MPs' position, a number of studies have tried to identify the possible antecedents of e-parliamentarians in the context of ICT usage. The extant literature has grouped these factors into *individual dimension*, i.e., MPs developing and utilizing personal ICT services, such as personal websites and political blogs (provided independently of part by parliamentary facilities); *organizational dimension,* i.e., the ICT services provided by the political party organizations that provide ICT facilities and party-based websites for their respective parliamentary MPs and thus operate under a collective identity with overly partisan objectives; and *institutional (legislative)*

dimension, i.e., the role of the parliamentary institutions in providing broad ICT functions and a website for the entire legislature [4]. Of the new media variables, the literature has also highlighted the role of technological convergence as an important conduit for more open and transparent democratic decision-making processes [5, 12, 13]. In turn, the tone and conditions of the "informing and participating" can contribute the policy debate and where contributions themselves are both deeper and broader or otherwise. Most studies on Internet technologies suggest that the role of innovative ICT, i.e., technological convergence by their very nature, broadens democracy [14, 15]. When people believed that there is "mass" deliberation by citizen instead of "elite" deliberation by elected representatives [16], they are likely to reciprocate through "informed and active" citizenry, all of which are likely to stimulate dynamic citizen participation. Van Djik [8] addressed the role of ICT with such participatory models of democracy in order to inform and activate the citizenry. Against this backdrop, the objective of this study was to examine the effect of individual factors of MPs (perceived usefulness, perceived ease of use, perceived self-efficacy) and the continuance use of ICT.

6.2   Literature Review

As mentioned in the introduction, several studies have reported the gaps in MPs' use and access between subgroups of society. In a study conducted by Gibson et al. [17], Internet-based political participation is largely applicable to the well-educated and wealthy men, so far as the UK experience is concerned. The gap in digital divide certainly creates a gap in forming the "virtual communities" to gain information via technology and assesses the potential impact of civic networks, questioning the relationship between virtual communities and the revitalization of democracy [18]. Barber [6] in highlighting the concept of strong democracy and creation of active participation had warn of the use of technology in that it could diminish the sense of face-to-face confrontation and increase the danger of elite manipulation. Consequently, there is an argument that politicians and bureaucrats find e-democracy disruptive, and they do not want to make use of untried methods [19]. Previous studies of Swedish parliamentarians and ICT usage revealed that there has been little interest to link new forms of digital participation at the individual level with actual political structures and to define specific policies of institutional reform [20]. In another study on ICT, usage among Swedish parliamentarians highlighted tensions affecting the institutional context (institutional dimension) since there are clearly internal divisions with parliamentary authorities on their role in providing ICT facilities. In other words, there is a tension between the "political opportunities of ICT usage and the practical delivery of ICT facilities" [4]. In another study on the use of ICT among UK's MPs, Norton [15] found the more rebellious the MP, the less likely they are to have a personal website, which means that rebelling MPs tend to be less interested in the use of blogging compared with the party loyalties. This somewhat concurs with the study by Leston-Bandeira

[21] as well as Lindh and Miles [4] that the Internet can affect the relationship between individual parliamentarians and their party organization. When individual MPs are "empowered" through the use of the Internet, this could lead to internal party restructuring and reduced organizational hierarchy to accommodate the wish or aspirations of the party loyalist among the MPs. What MPs get through an ever-widening range of technological platforms such as the website, e-mail, and Twitter or blogging is too huge to be ignored by the political parties.

6.3   The Study

The study aims to examine the impact of the Internet technologies upon MPs through a case study of Malaysia's *Dewan Rakyat*. In addition, the study also aims to investigate how and to what extent the Internet can help empower the MPs to use technology in their daily lives. This is in line with the aims of the Malaysian Parliament which has been actively involved in ensuring the Internet as a trustworthy medium for improving efficiency, transparency, and accountability in the modern parliamentary politics in Malaysia. Since the beginning of 1994, the Malaysian Parliament has built a road map for parliament technology development. As a matter of fact, the process of passing an act for the Malaysian Parliament can be a very long and complex process. Hence, the Parliament starts to launch the new project in 2002 – the Hansard parliament system. In the Hansard system, all the detailed questions and answers in the proceeding will be recorded. Each question and answer will be recorded in 10 min. Eventually, the record will be transcribed into words and will be uploaded and published on the websites. All individuals either MPs or citizens can download the document and read it. The electronic parliament project has given a hope to pave the way for better legislative information management.

The Malaysian Parliament also has established the e-parliamentary library which is known as a resource center. The Parliament of Malaysia Resource Center is a center of excellence for reference legislative, parliamentary, government, and public administration matters. The e-parliamentary library is used to help and support the research needs and facilitate MPs and staff in the belief that information and knowledge are a lifelong learning process. The Parliament of Malaysia Resource Center is continually improving its services and resources to generate more information and knowledge that can meet the needs for both the houses of representatives and the senate. The e-parliamentary library is also expected to help produce a society of knowledgeable and compatible parliamentarians. Their main objective is to be a center of excellence for reference on parliamentary matters and Malaysian politics and to proactively fulfill the information, research, and knowledge needs (www.malaysianparliament.gov). The parliament website is developed to provide the facility for members of parliament, ministries, departments, agencies, associations, and the public. They can obtain all relevant documents such as the Hansard of the *Dewan Rakyat* and *Dewan Negara*, order papers, calendar, acts,

bills, and others. In addition, visitors to this website can also get information on the proceedings of the Parliament for *Dewan Rakyat* and *Dewan Negara* as well as information on the MPs.

The findings in this study are also to showcase the Malaysian MPs' initiative in complementing the country's initiative toward becoming an information and knowledge-based society. All MPs have been supplied with an official e-mail provided by the parliament, for example, padangbesar@parlimen.gov.my [22]. The citizens can communicate with the MPs by using the e-mail. Besides, according to the parliamentary staff, some of the MPs have their own social networking such as blogs, Twitter, and Facebook to interact with the citizen. Through the use of online social networking such as these, the MP can interact with the citizens and it is also more convenient compared to the e-mail. The parliament is expected to use the ICT to increase the representativeness role of the parliament. This way, MPs will get better connected with their electorates. Besides, the public also will be able to participate more directly and collectively in policy input processes of parliamentary democracy.

A. Research Questions

Motivated by a perceived need to investigate how and to what extent ICT can enable a more participative systems of governing and supporting both MPs and citizens, the study was conducted to answer the following research questions:

1. How frequently do Malaysian MPs utilize the Internet per day and the type of ICT tools employed for communications?
2. What is the most determinant individual factors (*perceived usefulness*, *perceived ease of use*, *perceived self-efficacy*) in determining whether to continue using the Internet communication?

B. Methodology

Analysis of the individual factors contributing toward the continuance use of the Internet technologies among the MPs is the subject examined in this study. Given the intricate nature of Internet communication, this study used empirical methods or quantitative approach in collecting data. In order to evaluate the extent of usage by MPs and to avoid the novelty effect of the utilization of the technology, it is pertinent to conduct a survey covering all MPs totaling 222 of them. The questions on perceived usefulness, perceived ease of use, and perceived self-efficacy were adopted from the Technology Acceptance Model (TAM), which are well established in the literature.

A total of 67 respondents who returned the questionnaire or interviewed were from diverse profile, comprising of both male and female respondents aged between

38 and 65 years old. The respondents were not discriminated against any criteria; the main criterion was that they had adopted or were using ICTs in their daily chores as MPs. In addition to online postings, researchers have made every attempt to meet the MPs in person, whether at their office, home, or even at the parliamentary lobby. Meantime, the respondents' e-mail and contact details were obtainable through the parliament's office using official means. In addition to the facilities provided by the parliament for the medium of communication, the MPs themselves also have their own initiative to interact with the constituents. As indicated in the above discussion, the most common ICT tools used by MPs to communicate with the public are personal website, blog, e-mail, and online social networking. This is the determining factor in choosing all MPs for the study. Since it is not easy to get the MPs as they are normally have busy schedule, the reported findings that focused on the quantitative analysis are as shown in the analysis of findings section.

Data was collected in two phases for a period of 6 months. The first phase was considered as pre-13th General Election (GE) in which a set of questionnaire was distributed and a face-to-face interview was conducted. Phase two, which is during the post-GE 13th, was focused on getting the fresh MPs who have won the mandate by the people of their respective constituents.

6.4 Analysis of Findings

A. Reliability Analysis

The reliability is an indication of the consistency with which the instrument measures the concepts and helps to access the goodness of measure [23]. Therefore, reliability is a measure of how closely the various items that constitutes a scale correlate. There are many different types of reliability estimates. One of the most widely used tests is Cronbach's alpha employed in this study as shown in Table 6.1.

B. Multicollinearity Assumption

This is a crucial assumption required to be observed in correlation analysis among independent variables. As such, the assumption was tested as shown in Table 6.2.

Table 6.1 Reliability test result for variables

Variable	Number of item	Cronbach's alpha
Usefulness	5	0.95
Ease of use	7	0.86
Self-efficacy	6	0.97
MP continuance to use	9	0.84

Table 6.2 Multicollinearity assumptions

Variable	Tolerance	VIF
Usefulness	1.000	1.000
Ease of use	0.562	1.780
Self-efficacy	0.255	3.923

Table 6.3 Degree of internet usage per/day for communication among MPs

No. of time for communication	Frequency	Percentage (%)
1 time	3	4.8
2 times	6	9.5
3 times	7	11.1
4 times	6	9.5
5 times	41	65.1

The results of variance inflation factor (VIF) for all individual factors show that multicollinearity is not a problem in this study since the values 1.00 (usefulness), 1.78 (ease of use), and 3.92 (self-efficacy) are far below the threshold of between 5 and 10 [24].

C. Descriptive Statistic Results

To answer the first research question in this study, a descriptive statistical analysis is employed. The question asks for the extent to which MPs in Malaysia use the Internet for communications with one another. In this respect, Table 6.3 shows the degree of the Internet usage among the MPs for communication. According to the results majority of them use it between 1 and 5 h per day. Most of the MPs (65 %) utilize the Internet for communication five times in a day for engaging and communication with themselves, followed by about 11 % who have always used it three times per day. In addition, 10 % of the MPs utilized it for four times per day in communicating with their colleagues and the people they represent in various constituencies. The lowest frequency of using the Internet per day among MPs is at least one time or 5 % approximately according to Table 6.3.

Surprisingly, only about 10 % have always used it two times per day just like those who use it four times per day. A critical assessment of this usage reflects that there could be other means or channels through which communications are being carried out between the MPs and the government agencies or people they represent. Among the alternative channels could be direct phone call, fax, and even face-to-face engagement.

With respect to the type of technology tools used for Internet communications among MPs and their people, the findings in Table 6.4 have shown that majority of them utilized smartphone (yes, 82.3 %) followed by Twitter and Facebook with 76.6 % yes and 69.8 % yes, respectively. In addition, about 66.7 % of the MPs confirmed that yes they always utilize their blog as an Internet tool for communications and followed by e-mail (64 %). As relatively compared with other tools, it is

Table 6.4 Types of technology tools used for Internet communications

	Frequency of use		Percentage (%)	
Technology tools	Yes	No	Yes	No
E-parliamentary website	24	39	38.1	61.9
E-mail	40	23	63.5	36.5
Blog	42	21	66.7	33.3
Facebook	44	19	69.8	30.2
Twitter	47	16	76.6	25.4
Smartphone	55	8	82.3	12.7
Others	3	60	4.8	95.2

quite surprising that only little (yes, 38.1 %) of the MPs communicated via the e-parliamentary website provided by the government. The result also indicates that only minimal percentage (yes, 4.8 %) of the MPs utilize other means such as face-to-face and/or phone call to engage with others. Higher usage of Internet ICT tools for communications could be cost saving among MPs as compared to alternative phone calls or costs of face-to-face in moving from one place to another.

D. Results of Hierarchical Regression and Discussions

In order to answer the research question number 2 put forward earlier in the study, hierarchical regression analysis was employed. The rationale for using hierarchical regression is to evaluate the role played by each individual factor and appreciate the order of contributions to continuance use of the Internet. The results in Table 6.5 have shown the significant influence of perceived usefulness on continuance to use the Internet for communications among the Malaysian members of parliament with a beta coefficient value of 0.698 and t-value of 7.86, $p < 0.001$.

In addition, the results have also shown that ease of use plays a significant role in continuance using of the Internet among the MPs. This can be inversed from a beta coefficient value of 0.388 and t-value of 3.549, $p < 0.005$. However, according to the results, the self-efficacy role in this study is not significant with beta coefficient of minimal value of -0.065 and t-value of -0.397, $p > 0.05$. Even though the self-efficacy of the MPs is not significant, the result reflects an important message to us through its negative relationship with continuance to use the Internet for communications.

It means that the Internet might be a useful tool of communication with high intention to use it as a medium of engaging one another; however, continuance to use it will highly depend on perceived ability and capacity of the users (MPs) themselves. No matter how easy is the Internet for communication among the MPs, yet each individual MPs must have the capacity and ability to use it.

Generally speaking, the results in Table 6.6 indicate the significant contribution of each individual factors of using the Internet among the MPs for communications. The perceived usefulness variable in model 1 of Table 6.6 shows that continuance

Table 6.5 Hierarchical coefficient results

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. error	Beta		
1	(Constant)	10.337	3.036		3.404	0.001
	Usefulness	1.083	0.138	0.698	7.856	0.000
2	(Constant)	6.502	2.998		2.169	0.034
	Usefulness	0.685	0.169	0.441	4.042	0.000
	Ease of use	0.452	0.127	0.388	3.549	0.001
3	(Constant)	6.353	3.042		2.089	0.041
	Usefulness	0.744	0.226	0.479	3.292	0.002
	Ease of use	0.479	0.145	0.411	3.302	0.002
	Self-efficacy	−0.075	0.189	−0.065	−0.397	0.693

Table 6.6 Model summary result

Model	R	R square	Change statistics					Durbin-Watson
			R square change	F change	df1	df2	Sig. F change	
1	.698[a]	0.487	0.487	61.710	1	65	0.000	
2	.756[b]	0.571	0.084	12.598	1	64	0.001	
3	.757[c]	0.572	0.001	0.158	1	63	0.693	1.843

[a]Predictors: (constant), usefulness
[b]Predictors: (constant), usefulness, ease of use
[c]Predictors: (constant), usefulness, ease of use, self-efficacy
[d]Dependent variable: MP continuance to use

to use the Internet for communication among the MPs increases or decreases by 48.7 % if perceived usefulness increases or decreases by one unit. In addition, according to model 2 of the result, continuance to use the Internet as a medium of communication will increase or decrease by 8 % additional value of making the Internet easy for use. It means that if the MPs further perceived the ease of using the Internet tool by one unit, their continuance to use it will increase by 8 % additional to their perceived usefulness of it. Finally, the model summary shows that self-efficacy factor can only contribute minimal value of 0.1 % to continuance to use the Internet for communication among the MPs in this study. It means a one unit change in perceived ability and capacity of MPs will add another 0.1 % continuance to use the Internet for communications.

6.5 Conclusion

Generally, positive responses were given by the MPs about the Internet technologies. This implies that Internet communications have managed to empower the MPs in terms of their perceived trust and continuance use of the ICTs. In other words, the MP community is now aware of the importance of technology as a tool to search for

information and how it can add positive values and change their lives to get closer to the public. Although the community develops a perceived trust and continuance of use, some felt frustrated due to the technical glitches and problems associated with accessibility. These issues need to be seriously considered, and appropriate measures must be taken because such problems do affect the MPs' motivation and acceptance toward technology. Furthermore, motivation is a crucial factor for ensuring that the utilization of technology is successful. In other words, prior knowledge of these factors and their interactions can enhance the adoption and continuance of use at the various phases of the usage. Overall, according to the findings, technology tools must be easy to use as well as must be perceived of being useful among the users. More importantly, the results have indicated that technology might be easy to use and it might be perceived very useful, yet the ability and capacity to use it play some important roles. Therefore, it is suggested that members of parliament in Malaysia should be given more trainings to enhance their capabilities and self-efficacy of handling technology devices or technology applications of Internet tools as some of them may not be technology savvy.

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Chapter 7
Linking Entry Timing (ET) and Entry Mode (EM) Decisions in International Market Expansion by Malaysian Construction Firm: Toward the Development of ETEM Model

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Abstract Neglecting to properly choose the right combination of entry mode and entry timing strategies can lead to poor performance in international business ventures. The paper focuses on the linking of entry timing (ET) and entry mode (EM) decisions and the factors influencing both decisions. By consolidating the findings for both entry decisions, an ETEM model to guide the construction firms to access the targeted markets will be developed. The questionnaire surveys were sent to 115 Malaysian construction firms listed under Construction Industry Development Board (CIDB) Malaysia with 39.1 % response rate. The logistic regression (LR) model revealed that the majority of construction firms have chosen to be the late movers (LMs). Factor analysis carried out shows that the factors significantly influenced the firms' entry timing decision as LMs are the firm's international experience, level of knowledge, research and development intensity, competencies in project management, specialist expertise and technology, and financing capacity. The multinomial logistic regression (MLR) model has shown that majority of the construction firms preferred both equity (EQ) and non-equity (NEQ) entry modes. The factor analysis revealed that the factors that significantly influenced the firms' entry mode decisions to choose both types of entry mode are the firm's management of quality and risk attitudes, strong resources, experience in similar works, ability to assess market signals and opportunities, superior management and organizational dynamic capabilities, availability of partner/alliance, and existence of strict time limitations. The consolidation of findings shows that the majority of the Malaysian construction firms were the late movers, and they preferred both EQ and NEQ entry

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modes. Hence, this study contributes to an improved understanding of particular relationships that exist between the entry timing and entry mode decisions made by firms into international market.

Keywords Entry timing • Entry mode • Factors • Equity mode • Non-equity mode • Malaysian construction firms • ETEM model

7.1   Introduction

Expanding into foreign country is one of the most critical business strategies made by a firm to export their capabilities and exploit the opportunities in international market. Many firms have gained access to foreign countries using combinations of international market entry strategies. Three interlinked entry strategic decisions outlined by Gaba et al. [1] are considered by the firms with regard to the international expansion: which market to enter (entry location), how to enter (entry mode), and when to enter (entry timing). However, these decisions require the firm's commitment to operate within an unknown environment which sets the foundation for its future international business ventures [2]. Nonetheless, most of the previous research has addressed these questions in segregation, with very few studies attempting to establish relationships between the three interlinking decisions. A study carried out more than a decade ago by Koch [3] proposed an integration of entry location and entry mode selection named the MEMS model establishing both decisions as one process. The processes within the proposed MEMS model were incorporated with internal firm factors such as the firm's strategic objectives, international market selection experience, international competitiveness, and also subjected to external environmental factors such as the host country market potential and risks involved [4]. Studies on the relationship between entry timing decision and the other two dimensions (entry mode and entry location decisions) were claimed insufficiently carried out and analyzed through empirical research [5]. Recently, these issues are further addressed with empirical work by Gallego et al. [5], establishing linkages between the choices of entry location, entry timing, and entry mode of firms into foreign markets. The proposed model uses entry timing as the main variable which influences the other two dimensions (entry location and entry mode), which, in turn, are related to each other and include various factors influencing the proposed linkages [5]. Although the analyses on the factors relative to these entry decisions have been the subject of numerous studies, there still remain a number of questions that need to be addressed especially in choosing the appropriate combination of entry decisions and determining the significant influential factors on these decisions to enter international market. In order to answer these questions, this present study contributes empirically on the findings of factors influencing the entry timing and entry mode decisions of construction firms in international market. Hence, this study further consolidates

the factors commonly affecting both decisions by using the empirical finding to develop the ETEM model.

7.2 Literature Review

This section firstly reviews the literatures on the definition of entry timing (ET) and entry mode (EM) and, secondly, analyzes and discusses on the influential factors (IF) for both entry timing and entry mode (ETEM) decisions.

A. Entry Timing and Entry Mode Decisions

Generally in international business, it is important to understand the timing decision of firms to penetrate a selected foreign market, where firms normally face a particularly difficult decision of planning the right time to enter a foreign market [6]. Hence, timing of foreign direct investment also plays a critical role in multinational corporations' market entry strategy [7]. Green et al. [8] argued that entry timing may affect the firm's competitive position, especially on the ability and competency of a firm to fulfill its objectives in order to attain or even sustain its competitive edge. As shown in many previous studies, the order of entry represents an ordinal ranking that assesses market entry in terms of first entrant, early mover, second entrant, early follower, fast follower, late entrant, and LM [1, 9, 10]. Early mover (EM) is defined as the first firm or the first few firms to enter a new market when the market lead time that separates them is insignificant to enter a new product category [11]. Another researcher defined an EM as the very first firm to bring an innovative product or service to market [12].

Simultaneously, Chen and Chang [13] accentuated that the choice of entry mode is one of the most critical decisions faced by multinational enterprises (MNEs) to operate in the international market. Previous studies show that entry mode decisions such as joint venture, wholly owned, and merger and acquisition are found to be effective entry mode strategies in the international market [14, 15]. Hence, a hierarchical model of the basic entry mode choices for construction firms has been established as follows: strategic alliance, build-operate-transfer/equity project, joint venture project, representative office, licensing, local agent, joint venture company, sole venture company, and branch office/company under two main modes [14]. The entry modes were further categorized into two groups, namely, equity (EQ) and non-equity (NEQ) modes based on the level of commitment of resources and knowledge on international market. Hence, in this study, the entry timing decisions used in the questionnaires to inquire about the firms' decision either they prefer to be the EM or the LM. The type of entry modes adopted in this study, known as the entry mode taxonomy, was established by Chen and Messner [14].

B. Factors Influencing Both Entry Timing and Entry Mode Decisions

Based on previous research, the factors influencing the entry timing and entry mode decision are basically related internal and external attributes of the firms. One of the contributions on foreign direct investment theories has specifically addressed the early entrant advantages and posits that early entrants are influenced by their own characteristics (internal factors) and also by the environment (external factors) [9]. In addition, it is observed that internal factors are related to the firm's resource capabilities, such as the size and research and development (R&D) intensity carried out by the firm, while the external factors are related to the international market environment such as industry type, market growth, host country, and competitors [9]. In addition, the resource-based view (RBV) of firm was claimed to have influenced the theoretical perspective in international business research to certain extent [16]. Hence, this present study also adopts the RBV model to examine further the firm's resource capabilities which subsequently allow the firms to achieve sustainable competitive advantages with better performance. In the earlier study, Lieberman and Montgomery [16] explained that the firm's entry timing decision is subjected to the firm's internal factors, whether they are strong and confident enough to be the EMs or they have to wait and see to be the late movers. Hence, larger firms with strong intangible assets, having greater access to financing were found to enter the foreign market early [17]. In relation to the international environment, Huang and Sternquist [18] emphasized that the home and host country, distance between two countries, and firm's experience have influenced the retailers' entry location, entry timing, and entry mode strategic decisions. Hence, it was hypothesized that when home government policies are less favorable, the retailers favor early entry and choose entry modes that involve relatively high resource commitments and vice versa [18].

In this study, numerous factors related to the entry timing and entry mode decisions have been identified from previous research. The theories and models from these studies have been used in this present study as the conceptual framework and in the questionnaires survey to obtain opinions of the construction firms as factors influencing the entry timing and entry mode decision. In short, much research to date only focused on entry timing and entry mode in segregation. Thus, the ETEM model in this present study proposes entry timing as the main variable which influences the entry mode together with the factors influencing the proposed linkages.

7.3   Methodology

A. *Population*

Since there is no formal registry on Malaysian construction firms that export their services, the actual size of the population is not known. Hence, the population selected is from a sampling frame based on CIDB Malaysia record (2012) with 115 firms registered as global players operating in more than 49 countries. Their involvements in international projects include various sectors such as buildings, infrastructures, branches of engineering, mechanical and electrical, power transmission and plant, and oil and gas. The target respondents were the general managers, senior managers, project managers, assistant project managers, project engineers, project planners, contract managers, and project coordinators, those directly involved and have acquired international experience in handling construction projects in international market.

B. *Questionnaire Design*

This paper discusses the two parts of this ongoing research based upon the main surveys. Part 1 (a) inquires on the firm's preferred entry timing (either as an EM or LM). Part 1 (b) seeks the experts' opinions on the listed 44 factors influencing their entry timing decision. Part 2 (a) inquires on the firms' international experience and the types of entry mode chosen for their international projects. Part 2 (b) solicits the experts' opinions on the listed 44 factors influencing their entry mode decision. The level of significance for each opinion was measured using a 5-point Likert scale (1: Not critical; 2: A little critical; 3: Critical; 4: Very critical; and 5: Extremely critical).

   The following section explains on the method of analyses adopted together with some analysis of results. However, the detailed analysis of results will not be presented in paper. Hence, it only presents the findings and later further consolidates all findings related to entry timing and entry mode decision toward developing the ETEM model.

7.4   Method of Analysis and Analysis of Results

In order to determine the most significant factors influencing the firm's entry timing and entry mode decisions in the international market expansion, various statistical analysis techniques such as descriptive analysis, validity test, reliability test, factor analysis using principal axis factoring (PAF), normality test, logistic regression

(LR), multinomial regression (MR) analysis, and analysis of variance (ANOVA) were adopted.

A. Respondents

Out of 115 firms, 45 firms have responded giving 39.1 % of response rate. In order to increase the rate of response, personal distribution, follow-up letters, and phone calls have been carried out. Hence, the response rate for this study is acceptable since most of the surveys done in Malaysia generated a rate that falls between 10 and 20 % [19].

B. The Findings of Measurement for Independent Variables (Factors Influencing Entry Timing Decision)

In this section, the findings from all measurement for the independent variables are presented. These are the factors influencing each of the entry timing and entry mode decision.

1. Total Variance Explained

In this study, the data reduction process follows three criteria. Firstly, the Kaiser's criterion that only factor with eigenvalue greater than one was retained. Secondly, the factors having one item were excluded from the analysis, and, thirdly, the cumulative percent of variance was extracted using PAF based on the direct oblimin rotation. For the results of the entry timing, factors reveal the presence of five components with eigenvalue exceeding 1. These five components explained a total of 72.186 % of the variance with component 1 contributing 48.247 %, component 2 contributing 7.984 %, component 3 contributing 6.339 %, component 4 contributing 5.212 %, and, lastly, component 5 contributing 4.404 %. These results demonstrate a good cumulative percentage of variance of 72.186 %, which are well above the common percentage of the explained variance for humanities research. In humanities, the explained variance is commonly as low as 50–60 %. Hence, the total variances explained for the factors influencing both entry timing and timing mode decisions are acceptable.

2. Factor Extraction Using PAF

Factor analysis was used in this study to measure the independent variables (factors influencing the entry timing and entry mode decisions). Two methods that are commonly used for extracting factors in the published literatures for exploratory factor analysis (EFA) are principal components analysis (PCA) and principal axis factoring (PAF) [20]. Hence, following PCA analysis, PAF has been conducted in this study for comparison and assessment for best fit, and it was found that the PAF-rotated solution produces the best fit and factorial suitability, both intuitively and conceptually [21]. Hence, in this study, the PAF was adopted to analyze the responses of the 44 factors (items) used in the questionnaires.

(a) Components: Based on the criteria set, a five-factor solution has resulted in 20 items with factor loadings above 0.50 having eigenvalues above Kaiser's criterion of 1 and in combination explained 72.186 % of variance. The good communalities (greater than 0.6) also indicate that the factor analysis is suitable even though the sample size for this study is only 45 respondents [21]. These five components extracted were named as firm, project, performance, management, and market factors.

(b) Validity Test: The results show that the Bartlett's test significant value is 0.000 ($p < 0.001$) measured for all factors, which indicate that the test is highly significant. The results also show the KMO value of 0.779 ($p > 0.6$) with Bartlett's test of sphericity, χ^2 (190) = 725.122, $p < 0.001$, which indicates that correlations between items were sufficiently large and strong for PAF.

(c) Reliability Test: The test was conducted to measure the internal consistency of the factors (independent variables) using a recommended Cronbach's coefficient value greater than 0.7 [21]. Findings indicate that the components extracted have shown high reliability of internal consistency where the value for each component exceeds 0.7 (firm: $\alpha = 0.873$, project: $\alpha = 0.823$, performance: $\alpha = 0.905$, management: $\alpha = 0.890$, and market: $\alpha = 0.862$). In addition, the combination of the overall items also shows a very good internal consistency ($\alpha = 0.945$).

(d) Communalities: Using the PAF, the communalities are also established. The communalities indicate the amount of variance in each variable that is accounted for by all the components or factors in the factor solution. Variables with high values are well represented in the common factor space. According to Williams and Brown [21], for a study that has a sample size less than 100, the communality values must be above 0.6. The results indicate that nineteen (19) factors have values above 0.6, while only one (1) factor has values less than 0.6. However, this factor was retained in the analysis as the number is too small to violate the assumption of communalities.

(e) Normality Test: The Skewness and Kurtosis statistics test was performed in order to meet the assumption of normality for the entry timing factors. The information gathered from the descriptive statistics shows that all five factors are normally distributed since the values of Skewness and Kurtosis

coefficients are in the range of ± 1.0. Normal Q-Q plot is also used in this study to measure the normality of the variables and reveals that the majority observed values lies on the straight line in the Q-Q plots. Hence, all factors for entry timing decision are approximately normally distributed.

(f) Omnibus Tests of Model Coefficients: This test was performed to test the significance of the factors as the independent variables. The result shows that the coefficients are significant; $[\chi^2 (5) = 21.792, p < 0.05]$. Hence, the model has a good set of independent variables.

(g) Model Summary Using Cox and Snell R Square and Nagelkerke R Square: The values from this model provide an indication of the amount of variation in the dependent variable explained by the LR model (see Sect. 7.3). Precisely, in terms of the variance that was explained by this set of variables, the Cox and Snell R Square and Nagelkerke R square suggest that between 43.6 and 59.6 % of the variability is explained by the set of the factors toward the entry timing choices.

3. Measurement of Dependent Variables Using LR Model

A logistic regression model was used in this study to determine the effect an increment of each independent variable (factors) has on how likely the dichotomous variable (entry timing decisions) is to take the value of 1 as an LM, opposed to the value of 0 for an EM.

(a) Variables in the Equation: This analysis provides information about the contribution or importance of each independent variable (predictor) on the model. The results indicate that all factors corresponding to the values of Sig. are less than 0.05. Thus, these are the variables that contribute significantly to the predictive ability of the model. It can be concluded that the LR model was well fitted with the predictors, namely, firm, project, performance, management, and market factors.

(b) LR Model: The classification table summarizes the results with all predictor variables in the model. Based on the model, 95.8 % of the construction firms were correctly classified in the LM group, while 78.65 % in the EM group. As a result in the overall model, 89.5 % of the sample population was correctly classified as LMs.

(c) Goodness-of-Fit Test: The assessment of the model carried out has determined the appropriateness of the model. Hence, the Wald statistics has identified that the independent variables are good predictors.

(d) Assumptions of the LR Model: Prior to performing the LR analysis, a correlation statistics and outlier diagnosis were prepared to investigate possible signs of multicollinearity and the presence of outliers.

(e) Multicollinearity Diagnosis: Multicollinearity problems exist when there are serious or strong relationships among independent variables. The variance inflation factor (VIF) is calculated for all variables with the aim of verifying the possible existence of multicollinearity. This test measures the extent to

which the variances of the coefficients estimated in a regression are inflated when compared to the cases in which the independent variables are not linearly related. For VIF values greater than 10, the cutoff point can become indicators of the existence of multicollinearity [22]. The result shows the highest VIF value is 2.427, which is well below 10, the cutoff point recommended by Pallant [22]. Furthermore, all tolerance values are greater than 0.1 which rules out the presence of multicollinearity in the data. Hence, multicollinearity problem does not exist in this model.

(f) Presence of Outliers: In order to look for the presence of outliers, or cases that are not well explained by the model, the box plots obtained from the descriptive statistics were used as a tool to detect any outlier's case. Preliminary analyses were performed to ensure no violation on the assumptions of normality and outlier cases. The analysis has detected seven outliers which can harm the LR analysis and correlation analysis results for small sample size. Then, the outliers were removed leaving only 38 out of 45 items. The results given by the box plots indicate no outlier for the entire variables. The output in the LR table also shows that the case wise plot was not produced due to the absence of outliers. Since these two assumptions were met, it can be concluded that the LR model and its results are valid.

C. The Finding of Measurement for Independent Variables (Factor Influencing Entry Mode Decision)

1. Total Variance Explained

Under entry mode factors, the results reveal the presence of the three components with eigenvalue exceeding 1. The three components explained a total of variance with component 1 contributing 53.707 %, component 2 contributing 9.369 %, and, lastly, component 3 contributing 5.267 %. These results demonstrate a good cumulative percentage of variance of 68.343 %, which are well above the common percentage of the explained variance for humanities research.

2. Factor Extraction Based on PAF

(a) Components: Based on the criteria set, a three-factor solution has resulted in 14 items with factor loadings above 0.50 having eigenvalues above Kaiser's criterion of 1 and in combination explained 68.343 % of variance. The communalities of greater than 0.6 indicate that the suitability of factor for a sample size is only 45. The three components extracted were firm, market, and performance factors.

(b) Validity Test: The Bartlett's test significant value of $0.000(p < 0.001)$ measured for all factors, indicating that the test is highly significant. The results

also show the KMO value of 0.810 ($p > 0.6$) with Bartlett's test of sphericity, $\chi2$ (91) $= 535.722$, $p < 0.001$, which shows that correlations between items were sufficiently large and strong for PAF.

(c) Reliability Test: By examining the Cronbach's alpha, it is confirmed that the components extracted have good internal consistencies, with Cronbach's alpha values exceed the recommended value of 0.70 (firm: $\alpha = 0.923$, market: $\alpha = 0.859$, and performance: $\alpha = 0.890$) with overall items combined showing a very good internal consistency ($\alpha = 0.938$).

(d) Communalities: The results indicate that 11 factors have good values above 0.6 [21]. However, the other three factors with (<0.6) were retained as the number is too small to violate the assumption of communalities.

(e) Normality Test: The Skewness and Kurtosis statistics test was performed in order to meet the assumption of normality for entry mode factors. The results show that all three factors are approximately normally distributed since the majority observed values lie on the straight line in the Q-Q plots together with values for Skewness and Kurtosis coefficients which are in the range of ± 1.0.

3. Measurement of Entry Mode Choices

The following section describes the measurement analyses carried out using a descriptive analysis and a multinomial logistic regression analysis (MLR).

(a) Descriptive Analysis: The respondents were asked to choose the entry modes that their firms used to secure the international projects. Under EQ mode group, there are strategic alliance, JV company, JV project, build-operate-transfer/equity project, and wholly owned subsidiary, while for the NEQ modes, there are local agent, licensing, sole venture project, sole venture company, representative office, branch office/company, and others. Under EQ modes, the ranking of the entry modes chosen by the respondents based on the frequency is as follows: wholly owned subsidiary (18), JV project, strategic alliance (12), JV company (7), and BOT (4). Under the NEQ mode, the ranking is as follows: branch office/company (13), local agent (9), sole venture project (8), representative office (4), licensing (2), and sole venture company (1). The results indicate more than 50 % (23) of the firms have the experience in using both EQ and NEQ modes, while 44.44 % (20) of the firms preferred EQ modes and only 4 % (2) of the firms preferred the NEQ modes in the international projects. The descriptive analysis revealed three types of entry mode decisions: firms that chose EQ modes only (EQ), firms that chose NEQ modes only, and firms that chose both EQ and NEQ modes (BOTH).

(b) Multinomial Logistic Regression Analysis (MLR): The descriptive analysis revealed three types of entry mode decisions. Hence, for a further analysis, an MLR analysis was used to measure these multivariables with the assumption made, that the problem of multicollinearity among the independent variables does not exist.

(c) Goodness-of-Fit Test: Pearson and Deviance statistics (chi-square-based methods) were used to test the goodness of fit of the data into the model. The null hypothesis for both tests is H_0: The model is good fit. The results for both tests indicate that there is no significance test ($p > 0.05$); hence, the model is fit to the data. The Pseudo R Square test was carried out to indicate the amount of variation explained by the model. Hence, Cox and Snell R Square, Nagelkerke R Square, and McFadden R Square tests are used. The results suggest that between 12.5 % and 23.3 % of the variability is explained by the set of influencing factors toward entry mode decisions.

(d) MLR model that resulted from the classification table for three types of entry mode decisions provides the indication on how well the model is able to predict the correct category for each case. The model has correctly classified 60.0 % of overall cases. Then, likelihood ratio tests were carried to ascertain the significance of predictors of the model. The results show that there is no significant main effect on dependent variable as all the p-values for the three types are greater than 0.05 (0.075, 0.164, and 0.109, respectively). However, when the cut point for p-value is assumed < 0.10, it revealed that firm factor has a significant main effect toward the dependent variable with p-value of 0.075.

(e) Logistic Coefficient (B): The parameter estimates table was used to get the logistic coefficient (B) for each predictor variable for each alternative category of the outcome variable. It is shown again that there is no statistical significance for the entry modes if the critical value is set to 0.05. However, when the cutoff was set to 0.10, it shows that market factor is not significant to be used in the model. Hence, it can be concluded that the overall results have shown that firm factor is the strongest predictor factor to influence the entry mode decision with $B = 2.028$ (project factor: $B = -1.533$).

(f) Analysis of Variance (ANOVA) was used to determine the relationships between factors (independent variables) and the entry mode decisions (dependent variables). Three factors identified in this study are the firm, market, and project factors, while the three groups of entry mode decisions are EQ, NEQ, and BOTH. The Levene's test for homogeneity of variance was carried out to determine whether the variance in scores is the same for each of the three groups of entry mode (EQ, NEQ, and BOTH). The result shows that the significance value (Sig.) for Levene's test is greater than 0.05. Hence, the assumption of homogeneity of variance is not violated. Only the results on test of homogeneity of variance for the firm factor are presented since it has been identified as the strongest predictor for the dependent variables. The result shows that variances across groups are homogeneous ($p = 0.258$); hence the original F test can be used. It should be noted the check on the assumption of normality was not carried out because ANOVA test is a robust test toward normality assumption, and using the central limit theorem (CLT) for a sample size greater than 30, the firm factor (independent variables) is said approximately normal.

D. Development of ETEM Model by Linking of Entry Timing and Entry Mode Decisions

The LR model used in this study to measure the entry timing decisions revealed that the majority of construction firms have chosen to be the late movers, while the MLR model revealed that the majority of construction firms have chosen both EQ and NEQ modes. Hence, the findings suggest that the late movers have chosen both types of mode in their firms' international expansion. The findings are supported by a study carried out prior to this present study on the Malaysian construction firms [23] and also by another study showing that the EQ modes were preferred by the late movers [24]. At the same time, the findings also support a relationship study by Gallego et al. [5], which reveals that the late movers became more committed by choosing the EQ modes. However, another similar study on the Chinese contractors in Africa has shown that the early movers have committed to establish a long-term presence and opted to commit large resources by using the NEQ modes [25]. Nonetheless, these findings suggested that the EMs preferred the EQ modes which contradict to the present study and previous studies [26]. The impacts of early opposed to late movers were also examined by Schwens and Kabst [27] and who elaborated the imprinting effects of entry timing on the EQ mode decisions. The findings on the factors influencing the decisions have revealed that the firm factor has significantly influenced the firms' entry timing decision as late movers. Similarly, the firm factor has also significantly influenced the firms' entry mode decisions to choose both types of entry mode. The firm factor items for both the entry timing and entry mode decisions are outlined in Table 7.1.

Table 7.1 clearly shows that the consolidation of all factors considered for both entry decisions are the internal factors related to firm resource capabilities which support the RBV theory.

7.5   Conclusions

Contrary to the previous findings and theory approaches that perceive entry timing and entry mode selections as two interrelated but separate decisions, this paper argues that both decisions should be appropriately be treated as two aspects of one decision process. In addition, there is a limited literature on the international construction market penetration focusing on both entry timing and entry mode as a parallel decision. Therefore, this study also offers a theoretical contribution to substantiate the internal (related to firm) and external factors (related to international environment) influencing these decisions in an integrative manner by determining suitable combinations of entry timing (EM vs. LM) and entry modes (EQ vs. NEQ). It is hoped that the findings will assist the construction firms to avoid poor strategic decisions which can lead to failure in their business ventures abroad.

Table 7.1 Factors influencing market entry decisions

Market entry decisions	Factors influencing the decisions
Entry timing decision as late movers	Firm's international experience
	Level of knowledge and R&D intensity
	Competencies in project management
	Specialist expertise and technology
	Financing capacity
Entry mode decision using EQ and NEQ modes	Firm's management of quality
	Management of risk attitudes
	Strong resources
	Experience in similar works
	Ability to assess market signals and opportunities
	Superior management and organizational dynamic capabilities
	Availability of partner/alliance
	Existence of strict time limitations

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Chapter 8
Factorial Structure of Spiritual Intelligence Towards Purchasing Decision Towards Halal Cosmetic Product

Azreen Jihan Che Mohd Hashim and Rosidah Musa

Abstract Spiritual Intelligence (SQ) construct is difficult to measure, it is quite impossible without moral values that can affect one's attitude in the purchasing behavior process, so the paper is to report the results of a pilot study to confirm the analysis in SQ on consumer attitudes in purchasing Halal cosmetics and subsequently to confirm the intention to purchase by using the theory of planned behavior. It is a descriptive cross-sectional study among the Muslim women as the subjects, working and staying in the Klang Valley area in Malaysia. The purpose of the study is to develop a new measurement scale to unravel and decompose the underlying dimensions of SQ from the perspective of the Muslim-deemed imperative. About 200 respondents of user and nonuser of Halal cosmetics are selected. The structure equation modeling (SEM) was conducted to examine the relationships among God, society, and self, which are the dimensions of SQ to drive the Halal economy.

Keywords Spiritual intelligence • God • Society • Self

8.1 Introduction

The industry has been forecasted to emerge as the next important segment of the Halal industry following Halal food and Islamic finance [1]. The Halal cosmetic industry is gaining momentum among the Muslims, and it is essential as the consumers will turn into being more Halal conscious, and they will be considering products which are not only satisfying their needs but also giving them "peace of mind." The perspective of Halal cosmetics, it would be more effective if placing value of Halal prominent and influence to the spiritual needs as a Muslim [2]. Plenty of cosmetic products in the market those vigorously attempt to encourage customers to purchase their products. In Malaysia, the local brands are no less exceptional, and they obtained places in the eyes of customers today and are

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claimed as an "Islamic" brand by offering a creative and eye-catching promotion. Nevertheless, Malaysia's cosmetic products had not yet become a "home brand" for the female Muslim customers in Malaysia today. The scholars have focused enormous attention on the phenomenon of SQ in organizations and workplaces. However, the researchers focus on the construct of SQ from an individual perspective specifically in the marketing research stream that is limited, and an established scale to operationalize the concept has been underexplored [3].

8.2   Literature Review

A. Theory Planned Behavior (TPB)

TPB is an extended theory from TRA. TPB is more robust and broad and can be implemented in a variety of contexts such as marketing and consumer behavior. Perceived behavioral control (PBC) was added to the TPB model to describe the situation where a person has less control (volitional control) on a person's behavior that may reflect the difficulty in performing the behavior. These studies are using TPB for a reason [4]. First, this theory has been tested and used by many researchers because of its flexibility and ease of application in different situations. It has been proven that it can be used to study the intention of customers in purchases for organic personal care products from the perspective of the US consumer behavior [5]. Second, this study has been tested by previous researchers whereby the theory is valid for extending to a variety of learning contexts. Therefore, researchers have decided to use this theory as the main theory in this study [6].

B. Spiritual Intelligence (SQ)

SQ is a fundamental intelligence which controls the whole brain, left and right. SQ scale constructs have been combined and a new construct created. Spirituality per se refers to the search for experiential elements, consciousness, and transcendence which is the ability to predict operational adjustment in the environmental context. Intelligence can be defined as an ability of the individual to solve the problems that he/she faces and a capability to produce products that convey value to the culture and societies [7]. SQ is a hybrid concept that stems from two concepts of spirituality and intelligence, which has a type of intelligence which led to accessibility meaning in one's life. It is a kind of intelligence that resolves the problems in more intelligent life and get connected to the overall aspect which gives a great impact to oneself from others. SQ lies beneath the things people believe in, the role

they believe in, and the values they play throughout living and shaping their lives especially in facing problems and making any decisions in daily life [8].

There is an abundance of study that investigates on how the spirituality may give an impact and effect on behavior [7]. However, there is little research of measurement of SQ instrument that has been developed and validated and investigated the relevance of SI in verbalizing such attitudes [9]. Consequently, this research attempts to assess the degree of spiritual intelligence in predicting young adult Muslim women's (user or nonuser) attitude towards their intention to continue purchasing the Halal cosmetics in the future. This research model is based on the theory of planned behavior (TPB). Previous studies have suggested that a Muslim will be more spiritual if his/her behavior has been influenced by the values that match and integrate with the principle and abreast of what, when, where, how, by whom, and how much should be applied [2].

Karakas' [10] aims of the review by integrating three different perspectives on how spirituality enables or leads to organizational performance. It reported a positive relationship between spirituality at work and organizational productivity and performance [11] In his work, he introduced three perspectives on how spirituality (independent variable) benefits the organization as an individual and as a unit by itself. In this study, the researcher modified Karakas' model to suit the consumer perspective. While this study is to examine on how these three perspectives will influence the consumer to purchase Halal cosmetic. Karakas [10] listed spirituality enhances employee well-being in quality of life; give employees a sense of purpose and meaning at work, and provides employees a sense of interconnectedness and community [12].

For instance, Siti Akmar [12] noted that spirituality determined individuals profoundly understand their self-potential in order to comprehend the purpose of their life and value of the relationship between God and themselves as they believe that there is love of God, to own self, and one another when they have a relationship with God [11]. Therefore, current research has included SI as a contribution to the body of knowledge and independence, based on literature and observation of the population of research among urban Muslim females in Malaysia in purchasing Halal cosmetics.

1. Sense of Meaning (God)

The first component of spiritual intelligence involves the capacity to critically understand the meaning, purpose, and other existential or metaphysical issues. SQ is closely related to God or religion [13]. It refers to one's personal experience interpersonally about God and something extraordinary or about something that is pure. Several researchers noted that those who have a high level of SQ will automatically have a positive attitude towards religion and a positive relationship with God. Who experienced attachment with God should experience greater comfort in a stressful situation and greater strength and confidence in everyday life.

The experience of a personal relationship with God functions similarly to an individual relationship [14]. Therefore, this study can be developed in order to study the behavior of a person in making purchase decision cosmetic products that may be closely related to one's relationship with God.

2. Sense of Community (Society)

The second component is defined as perceived society dimensions of others (e.g., reputation and sense of community). Society can be defined as a group of people who share the same purpose of life including the belief, attitude, values, and norms of behavior. It can create values within a community, and it helps the stability of beliefs and attitudes that can be shared with the local community [12]. Society is a "domain" among people that have a collective thought pattern, feelings, and actions that dwell together.

The person with a high degree of intelligence will show a good manner and is nicer to others [15]. They have uphold the sense of community and become concerned on how they described their relationship with others in their immediate social environment, as many pressures to react to a situation are perceived to come from other people. It consists of two subdimensions which are called reputation and sense of community [11, 12].

3. Consumer Well-Being (Self)

The third component involves the capacity to perceive the dimensions of the self, on how they make the best decision, and how the capabilities will lead them to be a better person [11, 15]. The researcher breaks self into five capabilities: integrity, forgiveness, patience, materialism, and hygiene. Nobody is perfect in this world, but a spiritual level distinguishes one from the other.

SQ is an instrument of a person to raise the level of moral values in them. It shows that the SQ is closely related to the actions and attitudes of one's own. The background of the study is to investigate the degree level of SQ among individuals through making their own decision in purchasing cosmetic products [16]. Either the awareness of the Halal logo on the packaging of the product may influence their decision-making to purchase Halal cosmetic or not.

8.3 Research Methodology and Data Analysis

A. Sample

Total respondents were 200 ($N = 200$) among young adult urban Muslim females in Malaysia from 18 to 45 years old. The researcher aims to explore young adults or millennial behavior as they are the largest group compared to Baby Boomers or Generation X. Millennial consumers are expected to have a complete possession on their job responsibilities and purchasing power. It is essential for practitioners to look into their spending behavior and how they utilize social media and attach to the unlimited world. Normally, there are far above the ground of creativeness and passion about technology as they are growing up with social media. King [17] clarifies that millennial consumers have a high savor and prefer customization to reach their fulfillment in product or services.

Generally, social media facilitate value in supporting millennial consumers on decision-making about what, where, and when to purchase the products [18]. So, it is important to instill young adults as respondents as a sample for this study. The data was collected using a self-administered structured questionnaire. The questionnaire was distributed based on the quota sampling of the shopping population in four major cities in the Klang Valley. Drop-off and collect technique was being used, and the questionnaires were distributed in the office. The respondents with bachelor's degree were equal in number with those having master's/PhD. These two education levels represent the major group of the respondents, as mostly they are in the position of senior management/professional with high-income level and purchasing power. One hundred ten respondents or 62.5 % are having an income between RM3001 and RM4000, which represent the major income level, while the mean age was 32.5 years (range 20–45).

B. Scale Development

The first step to develop a good theoretical model is that items must be tested [19]. There are plenty of researchers go through the literature review of the subject to look at the construct from the previous research [20]. Thus, the purpose of this study was to develop and test a construct measure of SI, whereby the items of these constructs were phrased in the form of statements in eliciting a respondent's views on the present research subject matter [20].

C. Item Generation

The total of original pool was 76 items. Most of the items are based on the established measures from the previous study. There are intrinsic spiritual (God), sense of community, forgiveness, patience, and integrity. Whereas hygiene, reputation, and materialism were generated as the constructs and the main contributions of the researcher. In all these measures, a Likert-type scale of 1–7 was employed.

A score of 1 indicates "strongly disagree" with the statement, whereas a score of 7 indicates "strongly agree" with the statement. The overall items pool has been reviewed by 10 adults (professors of psychology from different universities in Malaysia, students, members) to assess its spirituality and religiosity.

8.4 Exploratory Factor Analysis

The 41-item pool was subjected to a principal components analysis (EFA) with varimax normalized rotation. However, for this paper, only 16 items were reported. The factor loading above or higher 0.4 was with significant and eigenvalues met suggested minimum value of 1.0 to be considered for retention [20]. The Cronbach's alpha was reported in Table 8.1.

Table 8.1 Summary result scale purification (EFA)

Table of exploratory factor analysis		
Details	Loadings	Cronbach's alpha
God		0.768
I feel deep inner peace and harmony	0.827	
I am spiritually touched by the beauty of creation	0.733	
My life is a gift and I try to value each moment in it	0.783	
I find comfort and strength in my religion	0.730	
Society		
I feel deep concern towards the environment	0.839	0.826
I have a deep sense of respect for others	0.805	
I have a deep sense of interconnectedness and community	0.798	
I enjoy meeting needs of others without expecting anything in return	0.618	
I uphold positive thinking of another fellow being	0.621	
For me working cooperatively with others is valued	0.584	
Self		0.751
If I say I am going to do something, I will	0.751	
My thoughts and practices are the same	0.805	
I am the same person in public that I am in private	0.691	
I am genuinely open and honest about who I am	0.725	
If I promise something, I can be certain that it will happen	0.705	

Table 8.1 reports the results of the exploratory factor analysis (EFA) of the independent variables (God, society, and self) excluding the demographic variables. A factor loading value of 0.60 is regarded as good and significant [21]. Overall 16 items had values of exceeding 0.60 with 0.839 as the highest. It is worth noting that all constructs that achieve eigenvalues greater than one are considered as significant. It is likely argued that the used items in the constructs were significant and qualified for the further analysis of the study data. After completing EFA, internal consistent reliability to test unidimensionality was evaluated by Cronbach's alpha. The resulting alpha values ranged from 0.751 to 0.826, which were above the acceptable threshold (0.60) suggested by [21]. In sum, all constructs have good internal consistency reliability.

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Chapter 9
The Relationships Between Talent Management Practices, Employee Engagement, and Employee Retention in the Information and Technology (IT) Organizations in Selangor

Nurul Ezaili Alias, Norzanah Mat Nor, and Roshidi Hassan

Abstract As Information and Technology (IT) industry is vital to the country's economic growth, it is important to ensure the smoothness operations so that long-term growth and development can be achieved with fewer obstacles. Hence, a constant availability of a large pool of talented and experienced people is crucial to carry out functions. However, employee turnover issue is a critical phenomenon within IT industry globally and locally. To curb this issue, academic attentions have diverted the focus upon the implementation of talent management practices on both employee engagement and employee retention. This study seeks to determine the relationships between talent management practices (managerial support, employee career development, and rewards and recognitions), employee engagement, and employee retention within IT organizations in Selangor. This is a quantitative study. The research instrument comprises of a self-administered questionnaire. A convenience sampling technique was used for this research. A total of 581 respondents responded valid questionnaires and it gives an average response rate of 77 % for the study. Data gathered were initially analyzed using SPSS version 20.0. The findings of Pearson correlation analysis indicate talent management practices (managerial support, employee career development, and rewards and recognitions) have positive correlation with employee engagement. It was also found that employee engagement has positive correlation with employee retention. The results of hierarchical regression analysis on determining the mediating effect of a mediator (employee engagement) indicate employee engagement mediated the relationship between talent management practice (employee career development and rewards and recognition) and employee retention individually.

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9.1   Introduction

It is reported that the transformative use of Information, Communication and
Technology (ICT) sector has been recognized to accelerate these Malaysia's 2020
aspirations [1, 2]. The ICT sector is targeted as one of the vital areas for engender-
ing the Malaysia's economic growth and becomes a very important industry due to
its role in stimulating expansion for other industries in Malaysia [3]. The ICT sector
in Malaysia accounted for 9.8 % of GDP in 2009, and it is targeted to increase to
10.2 % by 2015 [1]. In conjunction of this, the government has recognized that the
human capital development in this sector represents a critical component to the
Malaysia's economic growth. In order to achieve the goal, the development of
human capital and their needs should be enhanced and addressed. Thus, one of the
initiatives to develop this type of human capital is by strengthening the talent
management practices in entire organizations in Malaysia [4–6]. This has shown
that the government clearly acknowledges the retention of employees in Informa-
tion and Technology (IT) sector is crucial and critical to attain economic growth.
Hence, both Malaysia's public and private organizations in ICT sector must devise
strategic initiatives of talent management practices not only to attract employee
talents but also to enhance commitment in engaging and retaining them.

   Although the nature of this relationship is interesting, there is no study that has
analyzed the relationships between the three (3) constructs of talent management
practices, employee engagement, and employee retention in Asian's setting and
particularly in the Malaysia's IT industry. Hence, new chapter unfolds whereby
engagement and retention of employee talents becomes critical to the organization
and economic. Therefore, scholars and researchers believe that the needs to focus
on talent management practices influence to employee engagement and, employee
engagement influence to employee retention of human capital is crucial. After
extent review of the workplace talent research literatures, the author sets out to
design a testable hypothesized model linking between talent management practices,
employee engagement, and employee retention. This paper seeks to address the gap
in knowledge field by determining the relationship between talent management
practices (managerial support, employee career development, and rewards and
recognitions), employee engagement, and employee retention in the selected IT
organizations in Selangor.

9.2 Turnover Issue

IT industries globally have been characterized by a high rate of employee turnover [7, 8], and this critical phenomenon has emerged since the 1990s [9, 10]. As a matter of facts, Malaysia's IT organizations are also facing the same issue in retaining their employees. This is reported from surveys conducted by the Goh [11] and Ministry of Human Resource (MoHR) [12]; the data reveal ICT sector facing the highest employee turnover rate in Malaysia [11, 12]. In addition, according to the data obtained from the Retrenchment Unit, Department of Labour (JTK), Malaysia, on employee turnover rate within ICT organizations across main states in Malaysia, it reveals that Selangor is facing the highest voluntary turnover rate in 2010 and 2011 with 50 and 18 cases reported. Manifestly, it can be seen; IT industries globally and locally are facing this critical phenomenon of high employee turnover. Hence, this becomes a threat to the industry and economic growth.

9.3 Employee Retention

Employee retention is an important dimension in strategic human resource management (HRM) to sustain a competitive advantage for companies, particularly in IT industries in today's global market [13, 14]. Studies on the benefits of retaining employees in IT companies have significantly indicated that IT companies can gain a higher operating performance, higher returns on assets, and higher returns on capital employed [15]. In contrast, the loss of employees is expensive and may thus be detrimental to IT companies [7, 16]. Further, the effect of losing employees has significantly impacted on the performance of IT companies, loss of knowledge, experience, and know-how of companies and thus results in loss of profits [14]. Therefore, IT companies must understand the serious impacts of the loss of their employees and find a way to retain them. This is the focus of this study.

9.4 Employee Engagement

Employee engagement has become a very important dimension in HRM functions. Employee engagement is on the rise issue and was becoming an issue of concern for organizations during the 1990s and early 2000s [17, 18]. It is shown that there exists an employee's commitment before they decide to stay in the organization. It means improving employee engagement and therefore employee retention [19, 20]. Further, it is found that employee engagement is related to outcomes of individual's

attitudes, behaviors, and intentions [21, 22]. To date, academic attention has diverted the focus upon antecedents and consequences of employee engagement [21, 23]. Nevertheless, research that deals with antecedents of employee engagement has been converted to the implementation of talent management practices on employee engagement and hence on employee retention [24, 25]. Currently, a number of researches have emerged to curbed the issue of employee turnover by performing the talent management practices that could significantly contribute to employee engagement and therefore employee retention.

9.5 Relationship Between Talent Management Practice and Employee Engagement

Talent management practices that demonstrate commitment to manage the human resources result in more engaged employees and lower turnover rate [26]. In contributing to the effective implementation, an organization's talent management should also contribute to employee engagement [27]. Organizations that can fully engage their employees through effective talent management practice will clearly have a competitive advantage [28]. Effective employee engagement fosters an environment of stimulation, such as employee development and learning, superior support, rewards and recognitions in their talent management program [29, 30]. Improved outcomes in winning the employee talents' heart will only come to those organizations that learn to master talent management practices [31]. Therefore, organizations need to rethink their approaches to talent management and how it affects employee engagement [32].

A. Talent Management Practice (Managerial Support) and Employee Engagement

The role of a manager is a key component to engage employee. Supports from them enable employee commitment to the job and the organization. Managers also are an important key in practicing effective talent management in engaging and retaining employees [33]. Further, managers need to create the environment where employees feel more passionate about their work and exhibit the behaviors that organizations need to drive better results not only for the organizations but also for employees as individuals [27]. Hence, managerial support is a very important predictor of talent management strategy in engaging employee talent. However, Tymon et al. ([34], p. 111) state "a large empirical study in a developing country is

lacking." Further, managerial support for employees also plays an important role in organizational effectiveness [35]. Therefore, it is hypothesized that:

Hypothesis 1 (H1): There is significant relationship between talent management practice (managerial support) and employee engagement.

B. Talent Management Practice (Employee Career Development) and Employee Engagement

Learning is no longer solely associated with education and is no longer viewed as a precareer affair. There has been a shift from job security and lifelong employment to lifelong learning, employability, and talent management [36]. Moreover, Riccio [35] outlines his professional experience which illustrates his passion for employee career development and for institutions to incorporate a holistic talent management initiative for individuals at all levels of the organization. This is to ensure the bright opportunities for employees to further grow in future times. Further, the main purposes of employers nowadays in implementing employee career development programs are not only to support the employees in developing career but also to use the initiatives to engage and retain their potential employees [19]. Therefore, it is hypothesized that:

Hypothesis 2 (H2): There is significant relationship between talent management practice (employee career development) and employee engagement.

C. Talent Management Practice (Rewards and Recognitions) and Employee Engagement

Maslach et al.'s [37] concept of engagement has also suggested that while a lack of rewards and recognitions can lead to burnout, hence, appropriate rewards and recognition is important for engaging employees [37]. These include satisfactory talent management practice of compensation, company benefits, and company location [34]. Talent management practice of extrinsic rewards also called as hygiene factors tends to result in an increase in intrinsic motivation when they were expected and linked to a set of standards. Research has shown recognitions to be associated with a number of desirable work outcomes. These include engagement to the job: work competence and work progress or performance [38]. Tymon Jr. et al. [34] found that intrinsic rewards (recognitions) have indirect effect to employee engagement. Therefore, it is hypothesized that:

Hypothesis 3 (H3): There is significant relationship between talent management
   practice (rewards and recognitions) and employee engagement.

9.6 Relationship Between Employee Engagement and Employee Retention

Employee engagement is related to individual's attitudes, intentions, and behaviors
[22]. Employee engagement has a substantial impact on organizational outcomes,
employee productivity, and ease of recruitment and employee retention [24].
Lockwood [30] states "In a global survey of the engagement levels of 50,000
employees in 27 countries, research by the Corporate Leadership Council empha-
sizes the link of engagement to business success and its direct impact on employee
performance and retention" (p. 9). Further, the Tower Perrin Global Workforce
Study (2007–2008, p. 6) also concludes the same thing that "It is certainly true that
the more engaged employees are also more likely to stay with an organization."
However, research that investigates the degree to which employee engagement in
their work might influence retention is sparse [34]. Therefore, it is hypothesized
that:

Hypothesis 4 (H4): There is significant relationship between employee engagement
   and employee retention.

9.7 The Mediating Effects of Employee Engagement

According to Baron and Kenny (1986) and Preacher and Hay [39], there are three
prior conditions that must be met to establish mediation. Condition 1, the indepen-
dent variable (talent management practices), is directly related to dependent vari-
able (employee retention). Condition 2, the independent variable (talent
management practices), is directly related to mediating variable (employee engage-
ment). Condition 3, the mediating variable (employee engagement), is directly
related to dependent variable (employee retention). A significant relationship
between the independent variable (talent management practices) and dependent
variable (employee retention) will be reduced (partial mediation) or no longer be
significant (full mediation) when controlling for the mediator (employee engage-
ment) (Baron and Kenny 1986; [39]).

   Previous studies have indicated that there are significant relationships between
antecedents of employee engagement and employee engagement [21, 23] and
significant relationship between employee engagement and consequences of
employee engagement [40]. Further, employee engagement has been researched
and found as a mediating variable in previous studies [21, 22]. However, few
empirical studies on employee engagement as a mediator on the relationship

between talent management practices and employee retention make it particularly valuable to extend the body of evidence in this field [19, 24]. Thus, this study seeks to analyze whether employee engagement mediates the relationship between talent management practices (managerial support, employee career development, and rewards and recognitions) and employee retention. Therefore, it is hypothesized that:

Hypothesis 5 (H5): Employee engagement mediates the relationship between talent management practices (managerial support) and employee retention.

Hypothesis 6 (H6): Employee engagement mediates the relationship between talent management practices (employee career development) and employee retention.

Hypothesis 7 (H7): Employee engagement mediates the relationship between talent management practices (rewards and recognitions) and employee retention.

9.8   Methodology

A. Research Design

A research design embodies the design and plans employed in gathering, analyzing, and interpreting data. It comprehends the basic structure of the study. This is a quantitative study. It incorporates a scientific research inquiry designed to study the relationship between the independent, mediating, and dependent variables. The research instruments comprise of self-administered questionnaires (primary source). A set of questionnaire using Likert-type scale (1–5) were administered to respondents by the researcher. The Cronbach's alpha values at the pretest and actual test are above 0.8. It is found that the Cronbach's alpha value for this study is reliable where it is above 0.8. Data collected were analyzed using SPSS software (version 20.0).

B. Research Framework

The variables of this study are talent management practices: managerial support, employee career development, and rewards and recognitions (independent variables), employee engagement (mediating variable), and employee retention (dependent variable). These are depicted in the research framework in Fig. 9.1.
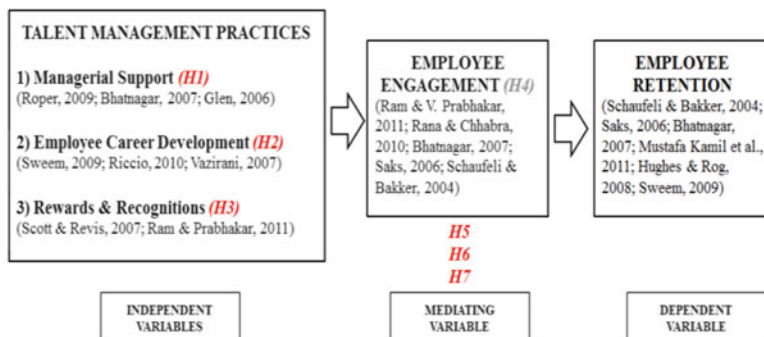
Fig. 9.1 Research framework

C. Sampling

The sample of target population was drawn from executives and above who work in IT companies in Selangor. This study conveniently selected three (3) IT companies in Selangor, and there were 840 employees from a convenience sampling. The units of analysis of the study were Executives and above from various departments of the selected IT companies.

D. Data Analysis

In order to test the relationship between variables, Pearson correlation analysis is performed to determine the associations between variables and test the hypotheses. Finally, in order to test for a mediation model, hierarchical regression analyses were conducted to analyze the significant indirect effect of a mediator.

9.9   Results

A. The Relationship Between Talent Management Practices (Managerial Support, Employee Career Development, and Rewards and Recognitions) and Employee Engagement

In this section, the nature and strength of correlation between each independent variable and mediating variable were analyzed. There are three (3) hypotheses pertaining to the correlation between independent variables and mediating variable, H1, H2, and H3.

Table 9.1 Pearson product moment correlation table between talent management practices and employee engagement

Correlations		Managerial support	Employee career development	Rewards and recognitions	Employee engagement
Managerial support	Pearson correlation	1	0.648**	0.541**	0.445**
Employee career development	Pearson correlation	0.648**	1	0.683**	0.544**
Rewards and recognitions	Pearson correlation	0.541**	0.683**	1	0.658**
Employee engagement	Pearson correlation	0.445**	0.544**	0.658**	1

**Correlation is significant at the 0.01 level (1 tailed)

Table 9.2 Pearson product moment correlation table between employee engagement and employee retention

Correlations		Employee engagement	Employee retention
Employee engagement	Pearson correlation	1	0.691**
Employee retention	Pearson correlation	0.691**	1

**Correlation is significant at the 0.01 level (1 tailed)

According to Table 9.1, talent management practices (managerial support, employee career development, and rewards and recognitions) have positive and significant correlation with employee engagement. Therefore, H1, H2, and H3 were supported. There are significant relationships between talent management practices (managerial support, employee career development, and rewards and recognitions) and employee engagement.

B. The Relationship Between Employee Engagement and Employee Retention

The result in Table 9.2 shows a positive and significant relationship between employee engagement and employee retention. Therefore, H4 was also supported. There is significant relationship between employee engagement and employee retention.

C. The Mediating Effects of Employee Engagement on the Relationship Between Talent Management Practices and Employee Retention

1. A Significant Direct Effect of the Predictor Variables to the Outcome Variable (Path a)

There are three (3) prior conditions of direct effect that must be fulfilled before conducting further mediation analyses. These are the following: (1) X significantly predicts Y (path a), (2) X significantly predicts M (path b), and (3) M significantly predicts Y (path c).

Table 9.3 reports talent management practice: managerial support does not make a significant contribution toward employee retention, while talent management practice (employee career development and rewards and recognitions) shows significant contribution toward employee retention. As a result, this shows that the significant direct effect between X (talent management practices: employee career development and rewards and recognitions) and Y (employee retention) (path a) was significant. Thus, these predictor variables are allowed for further mediation analyses.

2. A Significant Direct Effect of the Predictor Variables to the Mediator Variable (Path b)

Individually, the results in Table 9.4 revealed that talent management practice (employee career development and rewards and recognitions) shows significant contribution toward employee engagement. As a result, direct effect between X (talent management practices: employee career development and rewards and

Table 9.3 Multiple regression results between talent management practices and employee retention

Coefficients[a]						
		Unstandardized coefficients		Standardized coefficients		
Model		B	Std. error	Beta	t	Sig.
1	(Constant)	0.758	0.550		1.377	0.169
	Managerial support	0.092	0.034	0.097	2.723	0.007
	Employee career development	0.360	0.044	0.337	8.237	0.000
	Rewards and recognitions	0.387	0.034	0.428	11.533	0.000

[a]Predictors: (constant), rewards and recognitions, managerial support, employee career development
[b]Dependent variable: employee retention

Table 9.4 Multiple regression results between talent management practices and employee engagement

Coefficients[a]					
	Unstandardized coefficients		Standardized coefficients		
Model	B	Std. error	Beta	t	Sig.
1 (Constant)	9.166	1.116		8.216	0.000
Employee career development	0.263	0.089	0.141	2.970	0.003
Rewards and recognitions	0.833	0.068	0.525	12.238	0.000

[a]Predictors: (constant), rewards and recognitions, managerial support, employee career development
[b]Dependent variable: employee engagement

Table 9.5 Multiple regression results between employee engagement and employee retention

Coefficients[a]					
	Unstandardized coefficients		Standardized coefficients		
Model	B	Std. error	Beta	t	Sig.
1 (Constant)	3.259	0.543		6.006	0.000
Employee engagement	0.394	0.017	0.691	23.020	0.000

[a]Predictors: (constant), employee engagement
[b]Dependent variable: employee retention

recognitions) and M (employee engagement) (path b) was significant. Hence, these independent variables can be further analyzed for mediation analysis.

3. A Significant Direct Effect of the Mediator to the Outcome Variable (Path c)

As presented in Table 9.5, the result confirms that employee engagement has significant contribution toward employee retention. Hence, this also confirms that further mediation analyses could be conducted. Further, the findings for step 1, 2, and 3 (path a, b, and c) confirm the direct effect between talent management practices (employee career development and rewards and recognitions) – employee engagement – employee retention was significantly found.

As mentioned above, should any one of the above conditions not be fulfilled, then there exists no mediator and the variable is therefore not a mediator variable (Baron and Kenny 1986; [39]). In conjunction to this, it is found that there is no significant direct effect of talent management practice: managerial support toward employee retention and employee engagement. Therefore, employee engagement is not a mediator variable between predictor variable (talent management practice: managerial support) and outcome variable (employee retention). Therefore, H5 of the study was not supported.

There are only two (2) predictor variables talent management practices: employee career development and rewards and recognitions were preceded to step 4 of mediation analysis and (4) the indirect effect of M (employee engagement) between X (talent management practices: employee career development and rewards and recognitions) and Y (employee retention) (path c). Further analyses by Preacher and Hayes [39] were performed to determine the significant indirect effect of employee engagement on the relationship between talent management practices: employee career development and rewards and recognitions and employee retention. Regression-based approaches using bootstrapping by Andrew Hayes matrix were explained further.

4. Estimating Indirect Effect of Employee Engagement Using SPSS Procedures (Path c)

In analyzing the significant indirect effect of a mediator, X (talent management practices: employee career development and rewards and recognitions) affects Y (employee retention) indirectly through M (employee engagement) (path c). Preacher and Hay [39] have provided and estimated indirect effects in simple mediation models; they provide SPSS macros that facilitate estimation of the indirect effect with a normal theory approach and a bootstrap approach to obtaining confidence intervals (see also [40]). Below are the analyses of mediator that were analyzed. The results were analyzed and explained individually below.

According to Preacher and Hay [39], in order to ensure the significant indirect effect of mediator variable, the significant value must be above zero or positive value (>0/+ value). Further, to ensure the significant indirect effect of mediator, the bootstrap upper and lower value must also be above zero or positive value (>0/+ value). In other words, the population value of indirect effect of mediator variable must lie somewhere at above zero value or positive value (>0/+ value).

The output from regression-based approaches using bootstrapping by Andrew Hayes matrix found that the significant indirect effect of employee engagement on the relationship of talent management practice (employee career development) and employee retention was significant at 0.2598. Further, the population value of indirect effect is also significant where it lies somewhere at between 0.2 and 0.3. It was also found that the significant indirect effect of employee engagement on the relationship of talent management practice (rewards and recognitions) and employee retention was significant at 0.2349. The population value of indirect effect is also significant where it lies somewhere at between 0.2 and 0.3. It can be concluded that there is an indirect effect of mediator variable of employee engagement on the relationship between talent management practice (employee career development and rewards and recognitions) and employee retention. Therefore, H6 and H7 were also supported. Employee engagement is mediated by the relationship between talent management practice (rewards and recognitions) and employee retention.

9.10 Discussion and Conclusion

The findings provide new insight to the field of study of talent management, employee engagement, and employee retention. Previous researches placed emphasis on predictors and outcomes of employee engagement [29, 41, 42]. Talent management practices, employee engagement, and employee retention constructs were a neglected area of study. Studies about employee engagement were more focused on effecting turnover intention, turnover rate, and intention to quit as consequences of employee engagement [21, 24, 40]. The need to identify and investigate employee engagement influence to employee retention is still sparse [24, 34, 43], and the need to study on the three (3) main constructs, talent management practices (as independent variables), employee engagement (as mediating variable), and employee retention (as dependent variable), also remained unexplored, thus posing a gap in knowledge in this field.

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Chapter 10
Impact of Organizational Image in Determining the Level of Engagement Among Commercial Banks' Employees

I.A. Hussain, N.A. Ishak, N. Daud, and N. Yunus

Abstract The study investigates the role of organizational image towards level of engagement. The study used primary data which was gathered through 450 survey questionnaires distributed to bankers who are employed in the commercial banks. Distribution of questionnaires was handled through "drop-off" and "pickup" approach. This approach was taken in view of the confidentiality of workplace, practiced by commercial banks. The response rate was 91.8 % whereby 413 responses were gathered from 450 surveys distributed. The data gathered were analyzed, and findings obtained show that organizational image has contributed large unique contribution towards the level of engagement among employees of commercial banks.

Keywords Organizational image • Employee engagement • Commercial bank

10.1 Introduction

Employee engagement has gained the attention of many researchers in organizational behavior recently. The concept of employee engagement differs from work commitment and job satisfaction because it is conceptualized as evolving between employees and employer, while the other concepts only focus on the employees

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alone [1]. Engagement is conceptualized as a form of work attitude which witnesses employees' willingness to exert full energy and performance in organizations [2]. This attitude is able to bring organizations towards good financial performance resulting from good performance and efficient productivity from employees [3–5]. Therefore, high level of engagement among employees is important in organizations.

A. *Importance of Employee Engagement*

Employee engagement is one of the key determinants to acquire good employee performance [6]. Engaged employees can assist in materializing an organization's success and competitiveness [7] through their loyalty and willingness to stay longer in organizations [8]. The longer time spent in organizations allows employees to gain more tacit knowledge and ultimately transformed them into multiskilled employees [3–5,9]. Therefore, the concept of employee engagement is very important as it involves the aspect of citizenship, loyalty, commitment, and belonging of employees towards organizations. Organizations that are successful in creating a place where employees feel valued, recognized, appreciated, and supported are capable to acquire high level of employee engagement [10].

B. *Issue of Employee Engagement at Commercial Banks in Malaysia*

The structure of the banking industry consists of commercial banks, investment banks, Islamic banks, insurance, and unit trusts. The focus is on commercial banks in view of its main role in banking industry, i.e., managing loans against short-term, highly liquid liabilities such as deposits and providing special financial services in the form of credit extensions, deposit taking, and payment services [11]. Commercial banks are also important as they connect the banking system and help develop the country's economy [12,13]. The importance of its role has forced the central bank [14] to place commercial banks as highly regulated institution whereby all rules, policies, and procedures practiced are in accordance to the BAFIA Act (1989). This act has limited the flexibility in its daily operations due to some risk factors that they have to anticipate. Therefore, banks are not allowed to become flexible which stimulate less engagement among employees may then seek greener pasture elsewhere.

The inflexibility of commercial banks has resulted employees to job hop. This phenomenon has resulted in low engagement towards the current jobs and the organizations [15]. The job hop phenomenon has also caused high turnover among employees. Ultimately, turnover leads to difficulty for organizations to

face challenges in terms of managing the significant increase in cost for new hirers, for example, to train new employees and slow in productivity due to the inexperience of the new employees. It was found that an organization requires 45–60 days to replace the vacant position and time to train new employees in their jobs [16].

The operation of commercial banks requires fast speed and this can only be done by experienced employees. Therefore, it is very important for commercial banks to realize the significance of managing the level of engagement among its employees in order to avoid unnecessary operating time and cost.

In stimulating the engagement level of bank employees, the bank's reputation or brand plays a major role. The higher or stronger the reputation or brand of a bank represents, the better the image. In addition to that, strong banks' reputation reflects good financial acumen of that bank. Brand of the bank serves as one of the indicator of banks' trustworthiness and therefore becomes one of the convenience factors which determine customer's drivers of choice.

This study serves as a good platform to uncover the role of organizational image in association with the level of engagement among employees. The findings will assist human resource managers and commercial banks' management team to implement the necessary strategy in increasing the level of engagement among the employees.

C. Organizational Image

Organizational image is defined as the way that employees would want outsiders to view their organizations [17]. Some organizational behavior researchers define organizational image as summary of the images held by external constituencies due to its holistic and vivid impressions held by an individual or a particular group towards an organization. The definition is also based on the result of sensemaking by the group and communication by the organizations of a fabricated and projected picture of itself [18]. Organizational image is influenced by everyday interactions between organizational employees and external parties such as customers and suppliers, and the interaction can be affected by the intentions and influences of a wide range of employees including other groups [18].

D. Organizational Image and Employee Engagement

Organizational image of organizations resulted from the stability, quality of its services, the position of the organization in comparison to other organizations within the industry, as well as the willingness of the management team and stakeholders to get engaged in the actions of its employees [19,20].

Organizations that practice fairness and equity in compensation system result in good employee performance and high perception of justice at the workplace

[21]. The employees' perception tends to influence the perception of others on organization image [22].

Organizational image is one important construct which is able to assist researchers in understanding how organizations can manage its social environment and how it eventually affects the attitudes and behaviors of employees [19]. It explains the relationship between individuals with sense of engagement towards organizations resulting from good organizational image. In addition to that, it also suggests possible relationship between organizational action and individual motivation, for example, level of employee engagement towards the organizations. Based on the arguments on employee engagement and organizational image, the hypothesis below is formed:

Hypothesis 1 The perception of good organizational image will influence better engagement among employees of commercial banks in Malaysia.

10.2 Methodology

The objective of the study is to investigate the role of organizational image in determining the level of engagement among employees of commercial banks in Malaysia. Four hundred fifty survey questionnaires were distributed to gather primary data at various commercial banks. Five commercial banks agreed to participate in the study which resulted in 413 respondents and demonstrated 91.8 % success rate. The study used "drop-off" and "pickup" method whereby the questionnaires were left and collected upon its completion. This approach was done in order to meet the requirement from banks whereby confidentiality of information must be maintained. This approach was used because, according to BAFIA Act by Central Bank of Malaysia [14], visitors are not allowed to have direct and close contact with bankers other than official matters. In managing the regulation set forth by commercial banks, coordinators were appointed at each bank to coordinate the process of distributing and collecting the completed questionnaires. Coordinators at each participating commercial banks were given 2 weeks to complete the survey after distribution. However, due to the high volume of banking transactions and other projects in hand, some of the commercial banks have requested for "time extension." The researcher agreed to allow an additional 1 week, and finally all 413 survey questionnaires were completed and collected after 3 weeks.

The items to measure both employee engagement and organizational image constructs were adopted and adapted from Saks [23] and Riordan et al. [24], respectively, and used and measured in the survey using a 7-point Likert scale. The data collected were analyzed using SPSS version 18.0. Descriptive analysis, frequency analysis, correlation coefficient, and multiple regression analysis were performed.

10.3   Findings

Total sample for this study was 413 and comprised of 42.1 % male employees and 57.9 % female employees. The largest participation came from the Malays, i.e., 73.6 %, followed by 19.9 % Chinese, and the remaining were Indians and others. Most of the respondents, i.e., 75.1 %, were university graduates who acquired bachelor's degree. In terms of marital status, 75.1 % of the respondents were single. Being new in workforce, 76.5 % of the respondents are employed as executives, 10.9 % have been promoted to senior executive positions, and only 4.8 % were very competent and promoted to the assistant manager positions.

On employment tenure, 57.1 % of the respondents have only worked with the banks less than a year, while 29.1 % revealed that they have worked with the banks between 1 and 3 years. 37.3 % of the respondents worked less than 1 year with the previous employer, 32.7 % worked between 1 and 3 years with the previous organization, and 20.8 % declared that this is their first job. In terms of remuneration, 50.4 % of the respondents revealed that they earned between RM2,000.00 and RM3,000.00 per month, 20.3 % earned RM3,000.00–RM4,000.00 per month, and only 14.5 % earned below RM2,000.00.

Table 10.1 illustrates the result from descriptive analysis. The analysis was conducted to find the mean of both employee engagement measurement items and organizational image items. From the analysis, item 11 of employee engagement, "I am expecting to put in a great deal of effort beyond that normally expected in order to help this organization" scored the highest mean value, i.e., 5.39. For organizational image measurement items, highest mean value was found for item

Table 10.1 Descriptive analysis on employee engagement and organizational image

Items to measure employee engagement	N	Min	Max	Mean	SD
I am proud and happy to work for this organization	413	1	7	5.16	1.24
I trust my colleagues and senior management	413	1	7	4.95	1.26
This organization provides enough opportunities for me to be able to learn and grow	413	1	7	5.17	1.34
This organization makes me feel important	413	1	7	4.73	1.35
I understand and uphold the mission and the vision of the organization	413	1	7	4.89	1.21
Sometimes I am so into my work that I lose track of time	413	1	7	5.14	1.28
My mind often wanders and I think of other things when doing my work[a]	413	1	7	4.01	1.68
I feel very little loyalty to this organization[a]	413	1	7	3.78	1.68
I would accept almost any type of assignment in order to keep working for this organization	413	1	7	4.65	1.5
I am proud to tell others that I am part of this organization	413	1	7	5.22	1.34
I am expecting to put in a great deal of effort beyond that normally expected in order to help this organization	413	1	7	**5.39**	1.21

[a]Reverse-coded item

"This organization has a good reputation in the industry," with a score of 5.44. This indicated that among employees of commercial banks in Malaysia, it appeared that employees tend to demonstrate high level of engagement if they worked with organizations that possess good image and reputation.

Factor analysis was conducted on all items measuring employee engagement and organizational image construct. Out of 11 items used to measure employee engagement, 4 items were dropped due to low rotated component matrix loading.

Only seven items were retained for subsequent analysis. Five items were used to measure organizational image and four items were kept for subsequent analysis, as one of the items was dropped.

Reliability test was conducted to measure internal consistency of the items measuring both employee engagement and organizational image. All seven items used to measure employee engagement were used in performing the reliability test, and the value was found at 0.69, which indicated that there was a good internal consistency reliability of scale with the sample [25]. In measuring the internal consistency of items in organizational image, out of five items, one item was removed in order to obtain a good internal consistency value. The item "I would recommend to friends and family to work in this organization" was dropped. Using four items to measure organizational image, the reliability test value was found at 0.93, which illustrated a respectable value of internal consistency among the items used to measure organizational image.

In this study, both variables used were continuous variables; therefore, Pearson correlation is believed to be the most appropriate type of analysis in describing the strength and direction of the linear relationship for both variables. Table 10.2 illustrates the result of Pearson correlation analysis performed on items measuring organizational image against items measuring employee engagement.

Table 10.2 Pearson correlation analysis on employee engagement and organizational image

Items to measure organizational image	N	Min	Max	Mean	SD
This organization has a good image in the eyes of other people	413	1	7	5.38	1.3
This organization is known as a good place to work	413	1	7	5.31	1.2
I would recommend to friends and family members to work in this organization	413	1	7	4.95	1.5
This organization has a good reputation in the industry	413	1	7	**5.44**	1.2
This organization that I am working with has a good reputation among its customers	413	1	7	5.33	1.3

	EE
Employee engagement (EE)	1
This organization has a good image in the eyes of other people	0.59
This organization is known as a good place to work	0.58
This organization has a good reputation in the industry	0.57
This organization that I am working with has a good reputation among its customers	**0.61**

All four items measuring organizational image were found positively correlated to employee engagement. The findings found that the item "This organization that I am working with has a good reputation among customers" indicated the strongest relationship with employee engagement, i.e., 0.67, which showed that it explained 61.7 % of strong relationship between organizational image and employee engagement.

Five banks participated in this study and therefore data were gathered from all five banks. In order to investigate and confirm whether there are any reliable differences of all data collected from all participating banks, one-way ANOVA was conducted. The one-way ANOVA was a form of analysis used to compare two or more means and investigate whether there are any reliable differences [25].

According to Pallant [25]), the one-way ANOVA is a set of analytical procedures which is based on comparison of two estimates. The first estimate derives from differences of score within each group, and the second estimate derives from differences in group means which is considered as the replica of group differences including errors. If no differences were found in the two estimates, it can be concluded that the entire group means come from the same sampling distribution and thus can be generalized

According to Pallant [25]), Levene's test for homogeneity of variances that test whether the variance in scores is the same for all groups and if the value is greater than 0.05, than the assumption is not violated. Results from one-way ANOVA showed that the homogeneity assumptions have not been violated since the value was found at 0.652. Next is the analysis based on the F-probability value which indicated the outcome from variance between groups divided with variance within each group [25]. The findings showed that there was statistically a significant difference at the $p < 0.5$ level for the five banks in employee engagement $F = 4.783$, $p = 0.01$. Therefore, the findings indicated that the population means for all five participating commercial banks were almost equal and it is reasonable to conclude that all five participating commercial banks in the study came from the same population. Therefore, all the data gathered were permissible to be grouped together for subsequent statistical analysis.

This study also conducted multiple regression analysis to find the variance explained on the relationship between the two variables. From the multiple regression analysis, R-squared value was found at 0.53 which illustrated that 53.0 % of variance in employee engagement was explained by organizational image. From the ANOVA table (Table 10.3), the study found that the model is significant with the value obtained at 0.00. Beta (β) under standardized coefficients obtained a value of 0.733 which explained that organizational image, which is positively correlated to employee engagement, made a unique contribution to employee engagement.

Table 10.3 One-way ANOVA analysis

Levene's test for homogeneity		F-ratio	Significant value
Banks	0.652	4.783	0.001

*$p < 0.05$

Based on the beta (β) under standardized coefficients value, the study found a strong relationship between organizational image and employee engagement, i.e., at 0.73. In order to define the level of the relationship, the evaluation is as follows [25]:

- 0.1 to 0.29 – small
- 0.3 to 0.49 – medium
- 0.5 to 1.0 – large

Based on the evaluation by Pallant [25]), the study found that high amount of increase in perception of organizational image led to high level of increase in employee engagement.

10.4   Discussion

Findings from this study revealed that organizational image has a positive relationship and is positively correlated with employee engagement. The value found indicated that organizational image has quite a significant contribution in determining the level of engagement among employees of commercial banks in Malaysia. The findings obtained from this study have supported the hypothesis which stated that:

> The perception of good organizational image will influence an increase in level of engagement among employees of commercial banks in Malaysia.

The study found that organizational image was found related to the prestige feelings that employees have, once they are employed by the "well-known" commercial banks. The organizational name carries big influence in oneself as it portrays the image of those employees working for a "big" organization. With the role of commercial banks in managing the economic growth of the country, employees' role in the organizations is indirectly considered a major contribution for the country and hence stimulates prestige feeling to employees. The prestige feelings have ultimately helped to induce and influence the increase in the level of engagement among employees. This is also in agreement to the findings from the previous study wherein the image of the organizations from the employees' perspective helped to determine the performance of the organization which resulted from the work attitudes portrayed by the employees through their actions, i.e., the level of engagement [19].

When employees work for organizations that have good image from the perspective of others such as the customers and suppliers, indirectly it helps influence the employees' motivation to strive for the best service provided to the outside party. Employees will strive to protect the image of the organization by giving out the best service, and these efforts will boost their morale and increase the level of engagement in organizations. Previous study [19] found that the relationship between employees who sense the organizational image and their own image

suggested a strong individual motivation. This motivation is demonstrated in the form of level of engagement.

The findings strongly supported the hypothesis predicted for the study. Here, it shows that organizations must ensure good organizational image as it is considered as one of the important tools that can assist to increase the level of engagement among employees. Once employees are engaged, they strive their best in terms of performance and service rendered and uphold the mission and vision of the organizations.

One way of ensuring good organizational image is by constantly participating "corporate social responsibility" activities, for example, donation to the orphanage homes, giving out education assistance to children of well-performing employees, and many more. The findings support the objective of the study to assist organizations in finding tools that can enhance and improve the level of engagement among employees, and that is through building a good organizational image.

10.5   Conclusion

Globalization has increased the competency among commercial banks in Malaysia. Therefore, organizations have introduced many attractive employment packages to attract new employees and even "steal" competent employees from other organizations. The need of retaining employees through building a strong engagement level among employees has forced organizations to explore ways and means to increase the level of engagement among employees. This study served as one focal point for industry to explore and use the construct of organizational image in order to develop high level of engagement among the employees in the commercial banks.

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Chapter 11
HRM Practices and Organizational Performance: A Conceptual Model on the Performance of Acquiring Companies

Syazliana Astrah Mohd Idris, Rabiah Abdul Wahab, and Aini Jaapar

Abstract The purpose of this paper is to propose a framework in investigating the influence of human resource management (HRM) practices integration on the organizational performance of acquiring companies in Malaysia. A conceptual model was developed using resource-based view (RBV) to describe several concepts, namely, HRM practices which are used to support its relationship with organizational performance. Based on the variables engaged, it is argued that HRM practices are the most important element to be well integrated in the merger and acquisition process specifically in post phase in order to improve organizational performance. The paper is limited to a study that may have further implication for research by using a model to investigate the importance of HRM practices integration in merger and acquisition context. The findings will be useful to top management to design their HRM practices within a strategic condition in order to improve the performance of acquiring companies. This paper contributes to the existing literature of HRM specifically in merger and acquisition context.

Keywords Merger and acquisition • Human resource management practices • Organizational performance • Acquiring companies • Malaysia

11.1 Introduction

Mergers and acquisitions (M&A) are the new and creative ways of today's globalization for firms to perpetuate their businesses and possibly make profit [1]. According to KPMG study in M&A analysis, 83 % of M&A deals fail, and

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these deals had not boosted shareholder returns, while a separate study by Kearney (2012) concluded that total returns on M&A were negative [2]. In Malaysia, M&A exercise has contributed to accelerate one of the objectives of Economic Transformation Programme (ETP). ETP is an initiative by the Malaysian government to turn Malaysia into a high-income economy by 2020 [3]. Malaysia has been continuously become the highest ranking in M&A activities for the years of 2005, 2006, and 2007 with each total deal value of USD13.08 billion, USD28.24 billion, and USD44.06 billion, respectively [4] (refer Fig. 11.1).

Fig. 11.1 Total deal value (M&A) by country from 2005 to 2007 (Source: Extracted from Ref. [4])
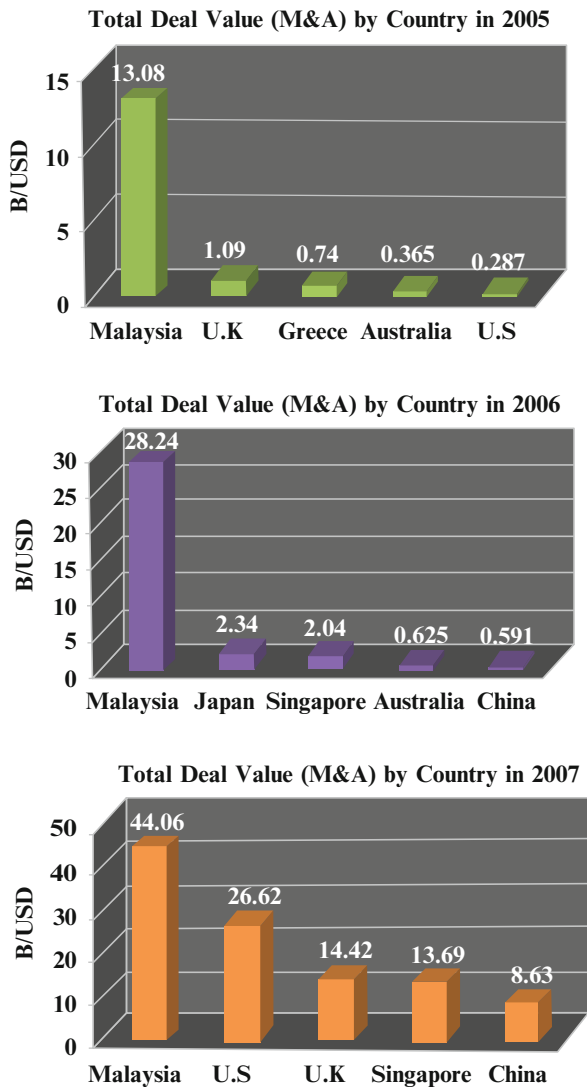
However, many of acquiring companies faced decline in their sales growth for the first 3–5 years that shows their performance has not been impressive after M&A activities [5]. For over 30 years, emergence of research interests has been growing to determine the factors that could affect the success and failure of M&A exercises, but it was end up with inconclusive result as the vital factors for success and failure of M&A still have not clearly identified [6–9]. There is an increasing evidence that cultural clash is the main reason of poor performance, lack of retention of key executives, and also delay in the integration of two or more companies [10].

Dearth of participation of human resource (HR) professionals and activities during the M&A process is the clarification for this failure [11]. A larger role of HR professionals in the M&A process was recommended in the human resource management (HRM) literature to facilitate organizations in determining possible issues early, hence able to derive appropriate solutions much earlier. However, empirical research from an HR perspective in M&A area has been scarce to date [9, 11, 12].

11.2 Literature Review

A. Reasons for the Failure of M&A

According to Appelbaum et al. [13], most of the M&A study has been focused in assessing the compatibility concerning financial figures, technological benefits, and market share, while for the soft M&A issues such as people management issues, it has always been neglected. The integration of the two or more workforces into one is the most significant task when a business has involved in corporate transaction specifically in M&A transaction. This task is significant and has to be a continuous process as it involved with employees' feelings, attitudes, and behavior that are mainly performed by the HR to support the complete M&A process, namely, pre phase, during phase, and post phase of integration [14, 15]. Thus, the success of a post-M&A implementation may heavily depend on how HR practices are used [14].

Many studies stated the percentage of failure of M&A [2, 16], but what is the most critical are the causes or reasons for this failure and how to solve or strategize the condition at the micro- or macro-organizational level in order to improve performance of acquiring companies in managing post M&A successfully. The major reasons identified for low performance of acquiring companies after M&A exercise include unrealistic expectation, poor planning, unskilled execution, paying too much, loss of productivity [17], incompatible cultures [18, 19], mismanaged talent, improper due diligence, power and politics, and people-related issues such as inadequate communication, poor leadership, retention of key employees and managers, poor decision making, unattractive of benefit, and compensation [11, 14, 16, 20–23]. These reasons indicate that during M&A exercise, people issues cannot be

neglected. Only 35 % of senior HR executives have been reported to be involved in the M&A process [16]. Furthermore, according to Charman (1999, cited in [16]),

> 80 percent of M&A failed at the integration phase due to the factors of an incompetent planning, very late and lack of involvement of senior HR executives, HR professionals lacking in business or global experience and finally failed in corporate change

Without HR practices such as training to secure the situation, uncontrolled employee anxiety toward changes can become a huge disturbance to the productivity of the organization [24]. Therefore, the HRM practices could help integrate the two or more companies and improve performance. This study aims to examine the influence of some HRM practices integration on the performance of Malaysian acquiring companies.

B. Performance of the Acquiring Companies

An extensive body of literature has investigated the variables that measure the performance of the acquiring companies. The evidence suggests that there is no clear relationship between performance and such financial and strategic variables as the degree of relatedness [7]. However, according to Stahl and Voigt [8], subjective measurements have focused on degrees of synergy realization, integration effectiveness, and strategic gap reduction, while objective measurements use accounting performance, market performance, and other operational data. The time horizon used varies from short term (around the announcement date) to long term (up to 5 years after completing the acquisition). Zollo and Meier [25] stated the level of analysis involved improvement of firm performance or competitive position to process efficiency (quality of execution of the post-acquisition plans, magnitude of premium paid, etc.). They have categorized past empirical studies on M&A performance measures into disparate categories, namely, integration process performance, employee retention, customer retention, accounting performance, long-term financial performance, and short-term financial performance.

According to Appelbaum et al. [1, 13] and Stahl and Voigt [8], performance of acquiring companies has been examined mostly from the financial and economical perspective. There is a lack of theoretical and empirical studies that examine the relationship of the performance of acquiring companies and HRM practices which emphasize   more on organizational and behavioral perspective [9, 11–13]. According to Stahl and Voigt studies [8], sociocultural integration-based measures, voluntary turnover, and stress can be considered as an important dimension of M&A success and failure. As for this study that concentrate on organizational and behavioral perspectives, the dimension of sociocultural integration that measures employee performance from Okoro [26] is considered critical and will be adapted to this study. Okoro [26] has examined the relationship between organizational culture and performance of merger in the Nigerian banking industry. The

study confirmed the positive relationship between an employee's perception of cultural traits integration and resultant organizational performance.

C. Human Resource Management (HRM) Practices

Today, HRM researchers generally agree that producing competitive advantage and enhancing organizational performance require the development of HRM practices [27–30]. The emergence in HRM research has served to strengthen it both theoretically [31] and methodologically [32], providing a foundation on which to build future work. However, current research has primarily examined the content of HRM practices, including best practices and bundles of HRM practices. These practices have been found to be positively associated with organizational performance [16, 29, 30]. According to Sheppeck and Militello [33], different HRM configurations needed to achieve a high level of performance, and it was supported by Lau and Ngo [34] who stressed that different types of HRM practices generate different firm outcomes. Additionally, as cited in Lau and Ngo [34], some HRM practices are related to financial outcomes, while some others may relate more to staff turnover [35].

D. HRM Practices in M&A

There are numerous empirical researches that have been conducted in Malaysia that investigate the relationship of HRM practices on organizational performance [36–38]. These studies have shown positive relationship between HRM practices and organizational performance. Bawa [36] investigated the relationship between HRM practices and performance in the plantation sector. On the other hand, Hung et al. [37] examined the relationship between fairness of HRM practices and leader-member exchange on organizational commitment in the manufacturing companies, while Intan et al. [38] examined the relationship between HRM practices and firm performance in Malaysia. However, for the relationship of HRM and performance in M&A context, little empirical research has been done and none has been documented in Malaysia's M&A to date. Empirical researches that examined the relationship of HRM and performance in M&A context were done in the USA by Ahmad and Schroeder [17] and in China by Zhu [23]. Ahmad and Schroeder [17] examined the HRM practices in the context of industry and country, whereas Zhu [23] examined between certain HRM practices and performance in manufacturing enterprises. These direct relationships have revealed positive effects of HRM practices on the performance of acquiring companies. But so far there is no consistent agreement on what to measure with regard to the performance of acquiring companies [7, 8, 12]. According to Bae and Rowley [39], some of the HRM practices are more suitable in executing some business strategies than others

and sometimes in certain context only [40]. From initial exploratory interviews done with senior HR managers of acquiring companies in Malaysia, the HRM practices that exist today are integrated from merged and acquired companies involved. However, a few key executives have revealed that although some of the HRM practices have been adopted to a new corporate organization after M&A, the acquirer or acquiring companies have the rights to customize that practices to suit with the new changing environment. The following section identifies those HRM practices needed in investigating the relationship with performance of acquiring companies. Three of the HRM practices that have been stressed in the literature that would support HRM in M&A especially in post-M&A integration are as follows:

1. *Training*: Training and development are critical. Training can improve managers' and employees' knowledge and skills that are critical to the new environment as a result of M&A. In addition, Weber and Tarba [12] recommend managers and employees need training to meet the requirements of new positions being created and of replacement of those who leave the company after M&A. It also helps to ease learning in the organization [34]. Effective training should include or consider specifically the issues of cultural differences and how to manage resistance to change as employees' responses are always negative during the integration phase. According to Child et al. [41] who conducted survey among top executives and investigated various integration practices used in M&A, training methods differ by nation. For example, American acquirers placed focus on formal training and courses, while Japanese acquirers chose on-the-job training. It was also found that at some acquired companies, training was related to performance, but the relationship with performance of acquiring companies was not investigated [12].

2. *Employee involvement*: According to Denison [42], cited in Amah and Ahiauzu [43], involvement refers to the sense of responsibility and commitment. Additionally, Amah and Ahiauzu [43] defined involvement as the level of participation by employees in a management's decision-making rule. Usually, employees are being given an opportunity to develop new opinions and generate constructive ideas into process in order to achieve better performance [44]. In the M&A context, employee involvement is crucial as it involves human behavior especially when dealing with major changes following the M&A. Employee involvement must be critically emphasized by the organization as success depends on empowering employees as they involve in shaping the culture that could contribute to organizational success. This is consistent with Amah and Ahiauzu [43] that revealed positive relationship between employee involvement and profitability in Nigerian banks. Thus, this study will examine the relationship of employee involvement and performance of acquiring companies in Malaysia.

3. *Compensation and performance appraisal*: Compensation reflects the organizational performance as it could influence employee performance [45] and performance appraisal referred to an objective appraisal against the benchmark of the job description depending on the objectives that were achieved in the final assessment [46]. One of the biggest challenges in retaining employees in M&A transaction is reconciling differences of pay and benefits between the combining companies [47].

Tuschke [48] has done an investigation on the impact of executive compensation on the post-merger integration of US and German firms. He found that German managers received very little performance-based pay compared to US managers. Additionally he revealed that compensation plan following the M&A really affected the firm performance. It was supported by Jamil and Raja [49] that found compensation practices are positively and significantly associated with employee performance of public sector organizations. Davies et al. [50] have studied the role of performance appraisal, remuneration, and training in improving staff relation in Western Australian accommodation industry. They revealed that for performance appraisal, many of the organizations have no emphasis on employee appraisal as they have not introduced any form for assessment. Performance appraisal is critical because it can motivate employees and increase the performance of the employee and organization and it is a major event between employer-employee relationship [48]. Therefore, this study suggests that compensation and performance appraisal should be linked to performance of acquiring companies.

E. A Proposed Conceptual Model

The suggested conceptual model shows the relationship between the HRM practices integration and the performance of acquiring companies (see Fig. 11.2). The model recommends that a specific set of HRM practices integration influences the performance of acquiring companies. It is believed that HRM practices that exist today in acquiring companies are integrated by at least a few practices from merged and acquired companies as has been mentioned in the previous section. The current study focuses on three of the HRM practices, namely, training, employee involvement, and compensation and performance appraisal. This study moves the frontier to investigate the specific set of HRM practices integration of M&A context in a non-Western country, namely, Malaysia, as findings of previous studies were based on Western data, therefore might not be transferable or applicable to Malaysian society. This model integrates existing theories to explain how HRM practices influence the performance of acquiring companies in Malaysia. The theoretical perspective employed is based on resource-based view [51].

HRM Practices Integration in M&A

1. Training
2. Employee Involvement
3. Compensation and Performance Appraisal

→

Performance of Acquiring Companies

Employee Performance
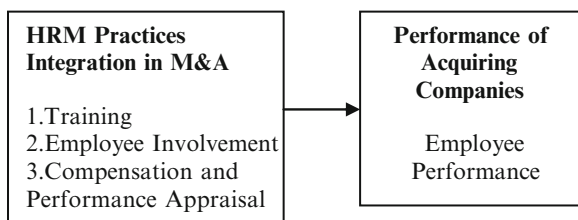
Fig. 11.2 Conceptual model developed in this study to investigate the influence of HRM practices integration on the performance of acquiring companies in M&A context

1. *Theoretical background*: According to Barney (1988, cited in [52]), resource-based view (RBV) of firms is based on the assumption that resources are distributed heterogeneously across firms. The acquiring and target firms are likely to show differences in both people management and practices. Obtaining know-how and developing technical capabilities are increasingly important incentives for acquisitions [53]. Weber et al. [9] stated that to produce a sustainable competitive advantage, the acquirer must transfer from the acquired firm assets and people with different and better skills and knowledge than it and its competitors possess and ensure the transfer of practices that allow differentiation from competitors.

2. *HRM practices and performance of acquiring companies*: The relationship between HRM practices and performance of acquiring companies is discussed best in the HRM literature. Not only are different HRM configurations needed to achieve a high level of organizational performance [33], but also different types of HRM practices generate different organizational outcomes. For example, Ulrich [35] suggested that some HRM practices are related to financial outcomes, while some others may relate more to staff turnover. However, the bundle of HRM practices has been very popular, and researchers have utilized different measures to assess these practices. As a result, there is no agreement among researchers concerning what these practices should be or the number of practices to enhance performance [54–56]. The underlying meaning of these practices can be different from one organization to the others [54]. There are many HRM practices that have been applied in previous studies, however three of the HRM practices mentioned in this conceptual model were the ones most commonly included in empirical HRM research in M&A. Additionally, one reason for focusing on the same practices in this study was that it enables comparison with previous studies as has been mentioned previously; findings of previous studies were based on Western data, therefore might not be transferable or applicable to Malaysian society. Hence, in this study, the relationship between specific set of HRM practices integration and organizational performance will be examined which would specifically test the influence of each variable of HRM practices integration and performance of acquiring companies in Malaysia.

11.3   Conclusion

From the preliminary study, it can be concluded that an organization has to select the key executive that has an experience with M&A exercise to be engaged in the corporate deals specifically in M&A integration. More emphasis needs to be placed during the planning stage of the integration process. It is believed that in HRM practices integration more emphasis on employee communication and retention of key employees are the most important activities in the HRM area for successful M&A integration [57]. The research is expected to contribute significantly to the body of knowledge concerning M&A decision in Malaysia. As the country is

looking for new sources of economic growth, it is hoped that the findings would be able to provide a foundation theory of new corporate firms. For theoretical contribution, this research aims to fill the gap in the body of knowledge of HRM practices in M&A perspective especially in Malaysia. Meanwhile, for practical contribution, the findings of this research will be valuable to top management and HRM managers to construct their HRM practices strategically in order to improve performance of acquiring companies in Malaysia, specifically in managing post-M&A phase efficiently.

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Chapter 12
IPA vs. SERVQUAL: Service Quality Measurement for Higher Education Industry

Mohd Raqib Zakariah, Sahidah Zakariah, and Jaafar Pyeman

Abstract Since 1996, Malaysia's higher education industry has evolved and expanded rapidly. As a result, stiffer competition exists between public higher education institutions (HEIs) and private higher education institutions (PHEIs) in various aspects such as service quality provided to students in terms of facilities, knowledge, and learning experiences. This situation is further aggravated when the market and social environment put much pressure on both HEIs and PHEIs to provide relevant programs and satisfactory service which at least surpassed the standards set by the MOHE. Obviously, both HEIs and PHEIs need to leverage their efforts in ensuring improvement in the quality of their services. In doing so, the quality of the services provided should be measured beforehand to identify their strengths and weaknesses. Nevertheless, the most accurate method of measuring the quality of services is strongly debated. In such light, this study compares two methods which are widely used in measuring service quality, namely, importance-performance analysis (IPA) and service quality dimensions (SERVQUAL). Based on such comparisons, this study has found several elements in IPA and SERVQUAL that can complement each other: (1) specific dimensions of attribute, (2) graphic visualization of result, and (3) transformation of result into strategic action. Hence, combining both IPA and SERVQUAL may be beneficial in providing new avenue for service quality measurement in the higher education industry.

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12.1 Introduction

The landscape of higher education industry in Malaysia has undergone tremendous changes in the last few decades.

Looking back in early 1980s, higher education was solely provided by public higher education institutions (HEIs). Only in mid-1980s, Malaysian citizen starts to realize the importance of tertiary education. It resulted in growing demand for the enrollment to HEIs. Inability of HEIs to capture those demands has prompted the government to give the permission to private institutions in providing higher education services.

Private higher education institutions were only permitted in 1996 under the jurisdictions of the Private Higher Education Institutions Act (PHEIA) 1996 with the amendments toward both the Universities and University Colleges Act (UUCA) 1971 and the Education Act 1961 [1]. Under PHEIA 1996, private higher education institutions (PHEIs) are given the permission to confer their own degrees.

Subsequent to such enactment [2], higher education industry in Malaysia was divided into two sectors HEIs and PHEIs. Since then, Malaysia's private higher education sector has expanded rapidly. Such expansion has led to the creation of tougher market environment for both HEIs and PHEIs.

Simultaneously, stronger competition between HEIs and PHEIs can be observed in various aspects such as service quality provided to students in term of facilities, knowledge, and learning experiences. Unfortunately, rapid expansion of PHEIs sectors does not last long and it seems to decline over the years. This is proven by observing the number of PHEIs over the years as depicted in Fig. 12.1.

Figure 12.1 demonstrates significant reduction in the number of PHEIs since years 2005–2011. The reasons for the reduction include the cancellation of 59 PHEIs establishment and deregistration of another 28 PHEIs between 2009 and 2010 over the quality issues [4]. The quality issues intensify in year 2011 whereby 47 PHEIs were fined by the ministry of higher education due to the nonperforming audit result, inspections, and complaints from public opinion compared to only 9 PHEIs that were fined in year 2009.

In order to uphold the quality of services by PHEIs, the ministry of education put much pressure on PHEIs to provide relevant programs and satisfactory service which at least surpassed their standards. Another important factor that leads to the reduction of PHEIs recently is increasing in the numbers of PHEIs that need to be closed down since they are running in loss due to low entrant level. In PHEIs business context, entrant and enrollment of students have been always an important factor which can turn their businesses upside down. Therefore, PHEIs may force to think differently about the role of student satisfaction for their survival since the competition from both private and public higher education becomes stiffer.

In addition, PHEIs in Malaysia are facing strong challenges with the increasing number of foreign-based PHEIs since Malaysian government changed higher education policy to allow foreign-based universities in 2009 [5]. These challenges are evident in attracting new students as well as retaining current students.

Fig. 12.1 Number of private higher education institutions from 2002 to 2012 [3]
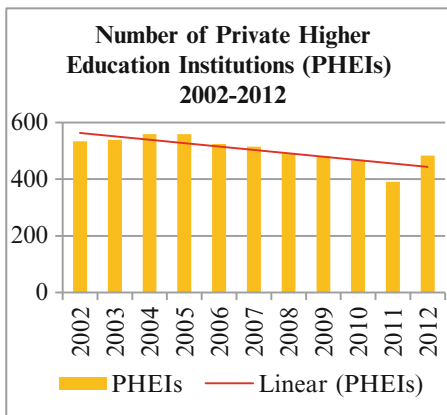
Currently, most PHEIs retained great reliant on tuition fees and market oriented as well as being more demand absorbing [6]. Furthermore, according to Arokiasamy and Nagappan [6], PHEIs usually offer few academic programs which are almost identical with other PHEIs, vocationally oriented, and in high-demand study fields. However, it is not that matters in selection decision but past customer (students) experience and the quality of services provided by PHEIs that matters [6]. Similarly, Donaldson and McNicholas [7] conclude that the customer would look through the evidence of service quality during the process of selecting potential universities.

The above discussion provides strong indication that confirms the importance of service quality in higher education context. The measurement of service quality is deemed to be one way to determine the deficiencies of services provided by PHEIs in order to make improvements and creating competitive advantage [8]. It is also used as a key strategy in marketing the PHEIs services to outperform their competitors in the competitive environment of higher education industry. Thus, appropriate measurement of the level of service quality is indeed importance to be explored.

12.2   Service Quality Concept in Higher Education Context

Service quality is often misinterpreted as customer satisfaction and has been used interchangeably even though they are two distinctive terms [9, 10]. Not only that, there are two conflicting opinions about how service quality and customer satisfaction are related to each other. Some researchers thought that service quality is the antecedent of customer satisfaction, while others thought customer satisfaction is the antecedent of service quality [11]. Nevertheless, one thing that is clearly identical between both service quality and customer satisfaction is that they are surrounded by the expectations and perceptions of customer toward the services being delivered or received. It is evident in most of the service quality definitions.

Among the earliest definition of service quality was provided by Lewis and Booms [12]; they defined service quality as a measure to how well the delivering of the services matches with the expectation of customer. Parasuraman et al. [13] professed service quality as the result of overall evaluation which compares customer expectations and perceptions toward the consumed services. In the 1990s, the definition of service quality evolved as the proposition made by Gronroos [14] which divides the service quality into two types: (1) technical quality, related to what was actually received by the customer, and (2) functional quality, related to how the services being delivered by the service provider. In line to the concept proposed by Gronroos in 1990, Kasper et al. [15] suggest service quality should be measured across the service selection, service process, and service organization that bear the ability to fulfill the expectation of customers toward the service delivered.

In the context of other commercial sectors, the quality of service delivered is measured based on product oriented, which basically relies on the quality of the product they sell to the customer. In contrast, the quality of the service delivered in higher education context is measured based on customer oriented which focuses on customer experience toward their offerings. This is due to the nature of the higher education industry which has no involvement of real (physical) product where the service provided acts as a differentiator [16, 17]. As further explained in the research carried out by DiDomenico and Bonnici [18], "...educational services are intangible and cannot be packaged, displayed or inspected fully by prospective students. Services also have a perishability problem because they cannot be stored for future delivery..." (cited from Asaduzzaman et al. [19]).

In such light, service quality in higher education can be measured through the student perception toward the perceived quality of the actual services they consumed. According to Wilkins and Balakrishnan [10], perceived quality is the judgment made by the student about what they have experience while consuming the service provided. It includes the comparison between what they expect prior to the service delivered and what they had actually experience after the service is completely received [20]. Perceived quality commonly produced from the evaluation of several service encounters [21].

In the HEIs and PHEIs context, perceived quality can be based on the judgment from several service delivered by the lecturers, administrative staff, and even the librarians. The service encounter that exceeds the students' expectation will be perceived as high quality, while the service encounter that does not meet the students' expectation will be considered as low quality [20]. Meaning that, the students tend to perceived quality negatively if they encounter negative experiences [22]. In fact, the level of service quality is very subjective, in which it can be influenced by social referrals, public opinions, emotions, past experiences, as well as the environments. However, it can be shaped via continuous improvements over a period of times.

Continuous improvement for both HEIs and PHEIs can only be implemented by triggering the deficiencies through appropriate measurement of service quality. As recorded in the literature of previous research, the issue surrounds the service quality measurement have been the focus of both academicians and practitioners.

As a result, a variation of measurement method to evaluate the quality of services has been developed, modified, and employed to go along with the changes in the environments and nature of specified industry. However, due to its complexity and intangibility nature, the measurement of service quality becomes a difficult task. Until today, the plethora of the measurement method left a lot of questions that need further investigation and explanation. Such questions include the applicability of both IPA and SERVQUAL methods to measure the quality of services in the higher education industry.

12.3   Importance-Performance Analysis (IPA) Concept

Importance-performance analysis (IPA) is a widely accepted method for measuring service quality that is well known of its simplicity and stress-free application. The concept of IPA was introduced in 1977 by Martilla and James [23]. Essentially, the idea of IPA comes from the theory of customer satisfaction as a function of the expectation on important attribute and the judgment of attribute performance [23]. The underlying assumption in IPA is the relationship between importance attribute and attribute performance toward customer satisfaction is linear and symmetric [24]. Thus, IPA focuses on the gap between the customer expectation on the importance and judgment on the performance of specific attribute of service consumed. The objective is to identify which attributes or its combination gives more impact toward customer satisfaction and leads to the repetitive customer purchase behavior [25]. It is useful information to evaluate competitive position and enable prioritization of available strategies to enhance customer satisfaction.

In order to operationalize IPA analysis, it is critical to clearly determine the attributes of service delivered to the customer. Based on the predetermined attribute, two dimensions are classified: (1) the importance of each attribute and (2) judgments of its performance. Therefore, the questions are developed to assess each attribute that surrounds the significance of the attribute and how well the deliverable of attribute is separated into two sections.

Then, the questions were asked to the selected sample of customers to get their feedback. Using the feedback gathered from the customers, central tendency of each (mean values) attribute is calculated and rank ordered from high to low categories. The central tendency of each attribute's importance and performance will be paired and used as coordinates for plotting respective attribute in two-dimensional grid that has been divided into four quadrants as illustrated in Fig. 12.2.

As observed in Fig. 12.2, each quadrant in IPA is divided by the importance of attribute from high to low (in vertical axis) and the performance of attribute from high to low (in horizontal axis). As a result, the disparity between importance and performance can be established. It provides indication that the customer is either satisfied or dissatisfied on the attributes of service consumed [23]. Further analysis of IPA can be accomplished by locating each attribute into appropriate quadrant in order of its relative importance and performance, moving from the top to the bottom

Fig. 12.2 Four quadrants
of importance-performance
analysis (IPA) developed by
Martilla and James [23]
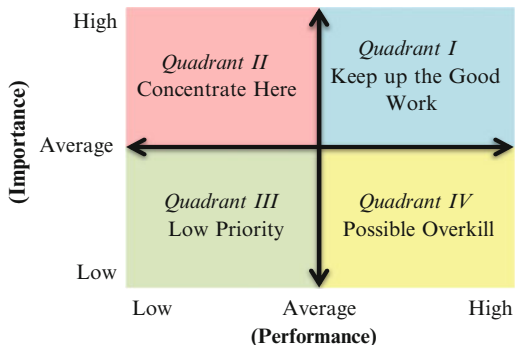
of the quadrant [25]. The placement of attributes will translate different impact upon the strategic interpretation within each quadrant. Four quadrants of IPA postulate different situation with different potential strategy for each quadrant. Further explanations of each quadrant are as follows:

Quadrant I: *Keep Up the Good Work*

The attribute placed in this quadrant has high importance and high performance. It indicates that the customers value such attribute as relevant to the service they consumed. Besides, the customers are also satisfied on how the attribute enhances the delivery of services. Therefore, such attribute must be maintained and exploited to achieve its maximum benefits as potential competitive advantage. At this point, it is important to sustain optimum level of resources to suffice its maximum benefits.

Quadrant II: *Concentrate Here*

The attribute located in this quadrant has high importance, but low performance. It is an indicative of the critical performance shortfalls whereby the importance attribute fails to satisfy the customers. In order to ensure good quality of services delivered to the customers, such attribute should become a priority to be attained first. This situation requires immediate actions and allocation of additional resources. If it is not immediately attained, it may become a major weakness that potentially reduces the level of competitiveness.

Quadrant III: *Low Priority*

The attribute situated in this quadrant has low importance and low performance. It shows the attribute is underperforming, but it requires no further action since it does nothing to the betterment of the services in the eyes of customers who consumed it. As such, there is no need for any changes in the efforts or resources allocated. Any extra efforts and resources spent on the attribute will just go in vain as the attribute has minimum impact to the consumed services.

Quadrant IV: *Possible Overkill*

The attribute which falls into this quadrant has low importance but high performance. It demonstrates the attribute was successfully performed but unfortunately deemed irrelevant by the customers. At this point, it is important to redefine the need to allocate more resources toward such attribute. Perhaps it is more beneficial to curtail the resource allocation and redeploy the efforts to the other attribute that needs immediate action.

The acceptance of IPA as the measurement of service quality is corroborated by extensive application of IPA, largely in the tourism sector [26, 27], followed by banking sector [28], education sector [25, 29–31], electric and electronic sector [32], automotive sector [24], and many others. Until these days, IPA still received a lot of attention among the researchers discussing its potential applicability in various industries with just little modification to suit the industry's nature of businesses. Thus, it is important to scrutinize it suitability to be combined with other measurement method to maximize its usability and benefits.

12.4   SERVQUAL Dimension Concept

Service quality dimensions (SERVQUAL) are professed as the most popular method to measure service quality which has been used extensively in both product-oriented and customer-oriented sectors. The concept of SERVQUAL was initiated in 1985 by Parasuraman et al. [13]. The concept of SERVQUAL lies behind the theory that the service quality is a result of the difference between customers expectation and perceived performance of the services they consumed [13]. In addition, SERVQUAL also presumes the existence of discrepancies between executive perception of service quality and the associated task during the delivery of services consumed by the customer. In such light, SERVQUAL framework is designed to capture both customers and marketers perspectives.

It is important to highlight that the sole judgment of marketers perspectives can be possibly favorable or unfavorable to the perceived service quality. Therefore, the understanding of customer perspectives would enable the executive to tailor their service offering to fulfill the customers' need and meet the performance level expected by the customers. The study conducted by Parasuraman et al. [13] revealed that the customer may evaluate the quality of services in reasonably similar criteria regardless of the type of services consumed by them. The said criteria are then generalized into several dimensions which are expected to serve any types of services. Originally, there are ten dimensions of service quality determinants listed by Parasuraman et al. [13] in his research piloted in 1985 as indicated in Table 12.1.

The criticism toward the overlapping service quality dimensions proposed by Parasuraman et al. [13] grows as time flies. These have motivated them to redefine each dimension of service quality in year 1988. In order to encounter such criticism,

Table 12.1 Service quality dimensions by Parasuraman et al. [33]

1	Tangibles	The capability to provide physical evidence including the facilities, tools, equipment, and appearance of personnel
2	Reliability	The ability to deliver as what have been promised to the customer specifically in terms of the billing, record keeping, and delivery time
3	Responsiveness	The readiness and willingness to serve the customer promptly and in timely manner either via mail, telephone, or appointment
4	Competence	The possession of knowledge, experience, and specific skills in the field of provided services and well trained to deliver effective service to the customer
5	Courtesy	The skills of personnel to show respect, polite, friendly, and being considerate to customer
6	Credibility	The tendency to uphold the trustworthiness and the honesty by securing the company reputation and achievement
7	Security	The ability to make the customer at ease, without doubt to any danger and risk to their physical safety, financial security, as well as the confidentiality issues
8	Access	The capacity to provide ease of contact to the customer in terms of operation hour and location
9	Communication	The aptitude to keep the customer well updated and informed, as well as maintaining two way communication during the process of service delivery
10	Understanding the customer	The involvement and effort spent to attain the customers' requirements including the individual attention and ability to recognize regular customer

the ten dimensions of service quality that are proposed in the earlier version have been modified and regrouped. As a result, they manage to establish another version of SERVQUAL which comprised of only five dimensions of service quality [5, 33] (Table 12.2).

The measurement of the quality of services using SERVQUAL dimension proved significant through its application in various sectors specifically in hospitality sector, education sector, banking sector, communication sector, and many others [8]. However, SERVQUAL dimension requires different changes in its application to different sectors. This is normal in practice, since one size does not fit all due to the complexity of business environment, internationalization, and changes in customer behavior.

12.5 Discussion

Both IPA and SERVQUAL continue to evoke the discussion among academicians and practitioners. Some of them corroborated their usefulness, while some of them criticized their delimitation. On top of that, both IPA and SERVQUAL proved their acceptance and practicality in various sectors. An effort to combine both IPA and

Table 12.2 Service quality dimensions by Parasuraman et al. [33]

1	Tangibles	The capacity to provide physical facilities, equipment, and relevant materials to enhance the quality of service delivered to the customers
2	Reliability	The ability to deliver the services as to what have been promised to the customers especially in terms of punctuality of the delivery time
3	Responsiveness	The capability and readiness to assist customers by providing information and prompt response
4	Assurance	The ability to gain customers' trust and confident by emphasizing the knowledge and courtesy of staff
5	Empathy	The willingness to give individual attention to each customers, being attentive and caring to customers

SERVQUAL may be the next avenue for another measurement method that needs to be explored in further detail. Looking at this possibility, it is best to discuss the issues contemplating their suitability to complement each other. Thus, the discussion in this section focuses on two important issues. The first issue relates to the similarities and differences between IPA and SERVQUAL. On the other hand, the second issue relates to the elements that can best complement and support the delimitation of IPA and SERVQUAL.

The concept of IPA and SERVQUAL is quite similar in a way that both IPA and SERVQUAL emphasize the importance of customer expectation and perception in their measurement method. Even though the findings of IPA indicate customer satisfaction, while those of SERVQUAL indicate service quality, it is important to note that there is a positive relationship between service quality and customer satisfaction [5]. In such light, there is no obstruction to rationalize the combination of IPA and SERVQUAL since the concept may provide support to each other. Besides, both IPA and SERVQUAL show the ability to trigger customer's needs, wants, and expectations based on customer's perspective and to diagnose where performance improvement can be best targeted. However, only IPA provides further indication on which one should be done first and where the allocation of resources should be focused on.

On the other hand, the advantage of the SERVQUAL compared to IPA is that it provides specified dimensions that can be used across many survey occasions and contexts in various sectors. Thus, it can consistently compare the result from the analysis in order to strategize potential action. One difference between IPA and SERVQUAL is the inability of SERVQUAL to detect the shortfalls in the desired quality of services since the confirmation approach is absence. The shortfalls may only be detected if the level of importance and performance is measured. Here comes the rationale to employ IPA analysis to be combined with SERVQUAL.

The above discussion concludes that both IPA and SERVQUAL possess their own strengths and weaknesses. In addition, it appears that neither IPA nor SERVQUAL can be reflected as clearly superior to one another. Conversely, there are several elements in IPA and SERVQUAL that can support the proposition to merge the IPA and SERVQUAL for better measurement of service quality in higher education sector. The elements that are recognized to complement both

measurement methods are (1) specific dimensions of attribute, (2) graphic visualization of result, and (3) transformation of result into strategic action.

A. Specific Dimension of Attributes

The decisions regarding the dimension of attribute are always somewhat subjective in IPA analysis. This leads to the difficulty in comparing the IPA result with the others. Therefore, standardizing its specific dimensions of attributes by absorbing the five SERVQUAL dimensions may be the best option since it is widely accepted and can be compatible in various sectors.

B. Graphic Visualization of Result

The interpretation of the result from SERVQUAL may be intriguing and may lead to the possibility of misinterpreting the result. This problem can be solved by integrating the attractive features of IPA, which makes the interpretation of result easier by plotting them on the four-quadrant graphic displayed. This will offer a practical and parsimonious approach toward condensing multiple customer response on each attribute into a clear visualization of results.

C. Transformation of Result into Strategic Action

Many researches frequently encounter problems when it comes to translating the results into the potential strategic action. Thus, it will be beneficial to utilize the combination of IPA and SERVQUAL. The absorption of the strength of SERVQUAL to set the standards to meet the quality requirement issued by customers and other stakeholders and IPA to suggest actionable strategies, particularly in allocating scarce resources, may lead to well-planned strategic action.

12.6   Conclusions

In conclusion, the combination of IPA and SERVQUAL is expected to leverage maximum benefits in the measurement of service quality particularly in higher education industry. The significance of combining both IPA and SERVQUAL increases when acknowledging the measured service quality as an indicator to the service performance. Hence, the emphasis given on the next stages in carrying out the study to prove the suitability of combined IPA-SERVQUAL is of great

significance. Once such combination is approved, there is no doubt that the measurement of service quality becomes more meaningful and useful in mapping out the potential strategic action to champion the higher education industry. It is important to maintain high level of service quality to create competitive advantage in promoting Malaysia as the best place to further study and becoming a higher education hub in the future.

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Chapter 13
Exploring the Relationships Among Transformational Leadership, Organizational Culture, and Product Innovation Using PLS-SEM

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Abstract Product innovation refers to new products development and improvement of existing products. The importance of product innovation proliferated as the market grows and becomes more diversified. Among SMEs, product innovation is one of the most critical determinants for their survival, growth, and competitiveness. Nonetheless, product innovation among SMEs is still low, owning to various issues and challenges. This study attempts to focus the effect of transformational leadership and organizational culture on product innovation among 36 SMEs in Johor. A SEM-PLS was used to validate the measurement model and develop the path modeling among variables studied. It is found that both transformational leadership and organizational culture are significantly related to product innovation. This finding substantiates previous findings and lends supports to the important roles of both constructs in SME's development.

13.1 Introduction

Innovation studies among small and medium enterprises (SMEs) have increased considerably in the past few years (e.g., [1–4]). Such interest is attributed to the pivotal roles played by the SMEs in terms of national economic growth and sustainability. Earnest governmental efforts to stimulate innovations among SMEs are evident in various policies and incentives provided to innovative SMEs such as InnoCERT award. Despite these concerted efforts to stimulate innovation

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among SMEs, the level of innovation among SMEs is still low [5]. The National Survey of Innovation (NSI) carried out by the Ministry of Science, Technology and Innovation, Malaysia (MOSTI), in 2003, found that majority of small enterprises are non-innovating firms with 74.1 % out of 482 enterprises. About 49 % of medium enterprises is classified as non-innovating firms. These figures signify pressing issues on how to stimulate more innovative SMEs especially when there is substantial empirical evidence that innovation is significantly correlated with organizational performance [6, 7]. Furthermore, Bagchi-Sen [8] claimed that SMEs who pursue product innovation are better performers in terms of export and total sales.

There are various factors claimed to stimulate innovation such as firm size and age of firms [5], market situations and internal practices [3], TQM practices [4], and external environment [9]. However, this study concurred with McMillan [10], who argued that internal factors such as leadership and organizational culture are more important compared to external environment. In addition, the organic nature of SMEs and pervasive role of SMEs' owner-managers have been argued as critical factors that foster innovation among SMEs [10–12]. Thus, this study aimed to examine the effects of transformational leadership and organizational culture on product innovation among SMEs in Johor State of Malaysia.

The outline of this paper is as follows. Section 13.2 presents literatures on transformational leadership, organizational culture, and innovation which eventually lead to the formulation of research hypotheses. Section 13.3 presents the methodology, while Sect. 13.4 reports the results. Section 13.5 continues with discussion and conclusion.

13.2 Literature Review

Innovation studies have been approached at various levels which include national, organizational, and individual levels (e.g., [13, 14]) due to inherent interactions among these levels. Diverse conceptualizations of innovation ranging from products and services [15] and marketing and strategic [16] to employee innovativeness [17] have also been observed. These varying levels of analysis coupled with different conceptualizations of innovation have been paradoxical. Although these studies have enriched the growing innovation literatures, they also obscure in-depth understanding of the topic. Thus, in the context of this research, innovation refers to only product innovation where it entails both new product development and incremental product improvements where the level of analysis would be organizational level. Resource-based view (RBV) would be the structural model of this study with the formulation of hypotheses based on previous empirical findings as follows:

A. *Transformational Leadership and Product Innovation*

The impact of leadership on product innovation is rested on how the SMEs owner-manager strategizes and mobilizes the firm's resources. The concept of transformational leadership goes beyond this by developing mission, building employees' commitment toward the mission by role modeling and internalization of values, and encouraging employees' creativity to produce more product innovation. Empirical evidence of the positive effects of transformational leadership on product innovation has been consistent albeit the difference in context.

For example, Saad and Mazzarol [18] reported that transformational leadership style significantly influences both product and process innovation in their study examining the impact of leadership on innovation among small and medium enterprises (SMEs) within Malaysia's Multimedia Super Corridor (MSC). Similarly, Matzler et al. [19] studied the effect of transformational leadership on product innovation and performance among innovative SMEs in Austria and found that transformational leadership has a positive impact not only on product innovation but on growth and profitability. Samad [20] surveyed 150 managerial staffs in logistic companies and found that transformational leadership is not only predictive of product innovation but also organizational performance. Gumusluoglu and Ilsev [21] also discovered consistent result when they investigated the effect of transformational leadership on creativity and organizational innovation among micro- to small-sized Turkish software development companies. Based on these studies, a hypothesis is formulated as follows:

H$_1$ There is a significant relationship between transformational leadership and product innovation.

B. *Organizational Culture and Product Innovation*

Organizational culture acts as a binder to guide collective employees behaviors based on the organizational norms and values. SMEs that encourage innovation would integrate different facets of organizational DNA to promote creativity, risk taking, and stimulate employees' involvement. Since SMEs usually have a strong organizational culture due to their smaller sizes, the influence of organizational culture on product innovation is expected to be higher.

Tajudin et al. [22] investigated the effects of organizational culture, market orientation, and innovativeness toward new product performance among SMEs. Using a mixed method approach, they found that organizational culture is not significantly related to new product performance in the survey phase of 65 respondents. However, this research was carried out among SMEs who are involved in R&D activities. Valencia et al. [12], on the other hand, used structural equation modeling to analyze 420 responses from organizations which have more than 25 employees in southern Europe. They found that product innovation is positively

associated with adhocracy culture and has negative relationship with hierarchical cultures. Adhocracy culture characteristics include creativity, empowerment, freedom and autonomy, and risk taking, which in essence parallel with the Denison model of organizational culture. It is hypothesized that

H₂ There is a significant relationship between organizational culture and product innovativeness.

C. Transformational Leadership and Organizational Culture

Theoretical literatures suggested that organizational culture is derived from leadership [23–25]. Bass and Avolio [24] claimed that transformational leaders revive the organizational culture by aligning it with a new vision and prepare it for desirable organizational change. Nonetheless, empirical studies revealed inconsistent findings on their relationships. Although Block [25], Choi and Sagas [26], and Lucas and Valentine [27] found significant relationship between transformational leadership and organizational culture, however, Ridgway [28] found no relationship. However, since the number of studies with positive significant relationships is greater, this study hypothesized that

H₃ There is a significant relationship between transformational leadership and organizational culture.

The framework of this study is depicted in Fig. 13.1.

13.3   Methodology

This research employed explanatory research design with survey such as the major data collection technique. The selection of the research design was based on the nature of the research objectives that involved hypothesis testing and the need to observe the phenomenon in its natural setting.

A. Sample and Procedure

Thirty-six mixed performing SMEs participated in this study from a sampling frame of 45 which yield a return rate of 89 % which exceeded the common return rate range of 50–80% [29]. The sampling frame was taken from the SME Corporation list of registered SMEs located at two industrial parks in Johor.

The respondents are mostly Chinese (46.9 %), followed by Malay (37.5 %), Indian (12.5 %), and others (3.1 %). Most of them are between 35 and 45 years old
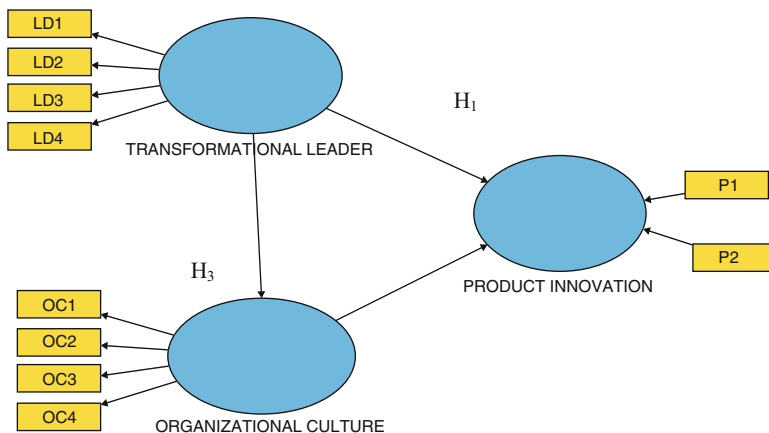
Fig. 13.1 Structural model of transformational leadership, organizational culture, and product innovation

(53.1 %) with only 12.5 % more than 46 years old. Majority of them had a degree or higher (43.8 %), followed by high school certificates (28.1 %), diploma (18.8 %), and only 9.4 % with secondary schooling.

B. Instruments

Two established instruments which include Leadership Questionnaires (MLQ-5X) and Organizational Culture Survey (OCS) were utilized in this study. Multifactor Leadership Questionnaires (MLQ-5X) was used to measure transformational leadership, while Denison's Organizational Culture Survey (OCS) was used to measure organizational culture. Product innovation items were self-developed to reflect two major categories of product innovation which are new product development and incremental product development.

C. Analysis

A structural equation modeling (SEM) analysis using a partial least squares (PLS) technique was used to test the structural and measurement of the theoretical model that was postulated earlier in the study.

13.4   Results

Table 13.1 shows the descriptive statistics, measurement model reliability, validity, and correlation matrix. The mean for transformational leadership dimensions ranged from 3.726 to 3.805, while the dimensions of organizational culture had mean from 3.687 to 3.960. The mean of new products was 3.468 (SD = 0.873), and product improvements was 3.631 (SD = 0.651). These results indicate that SMEs are involved in more product improvement activities compared to new products.

The measurement model indicates that all constructs are reliable (>0.7) in terms of both composite reliability (CR) and Cronbach's Alpha (CA) [30, 31]. Convergent validity of the constructs was gauged by the factor loadings and average variance extracted [32]. The loadings of all items and average variance extracted (AVE) exceeded the recommended value of 0.5. The AVE for each construct is greater than the squared correlations of other constructs which implies adequate discriminant validity [33].

Table 13.2 shows the path coefficients of the structural model. The structural coefficient between transformational leadership and product innovation is significant ($t > 1.96$) with direct effect of 0.181. Thus, H_1 fails to be rejected. The structural coefficient between organizational culture and product innovation was 0.327 ($t > 1.96$). Therefore, H_2 is accepted. The structural coefficient between transformational leadership and organizational culture is significant with direct effect of 0.489 ($t > 1.96$). Thus, H_3 is accepted. Thirty-six percent of variations in product innovation are explained by transformational leadership and organizational culture.

13.5   Discussion and Conclusion

The positive effects of transformational leadership and organizational culture on product innovation not only substantiate previous findings but also highlight the importance of both constructs to be further scrutinized in SMEs development agenda. Since participated SMEs are not contrived in any particular industries, the implication of this study is compelling. SMEs owner-managers' leadership style seems to have myriad of positive effects not only on organizational culture but also the product innovation. As argued by A. Zafer Acar [11], abilities to differentiate product through innovation would enhance business performance. Transformational leaders should be able to marshal organizational resources and appeal to employees' commitment to produce more product innovations. Organizational culture which focuses on innovation would further accentuate the leadership commitment and aspiration.

Future studies should investigate whether the organizational culture mediates the relationship between transformational leadership and product innovation since there is a significant relationship between transformational leadership and

Table 13.1 Measurement model reliability and validity

	Items	Loading	Mean	SD	AVE	CR[a]	CA	Correlation		
								TL	OC	PI
Transformational leadership	II	0.917722	3.726	0.418	0.721	0.911	0.869	1		
	IM	0.811098	3.792	0.569						
	IS	0.917927	3.757	0.42						
	IC	0.735475	3.806	0.444						
Organizational culture	INV	0.830634	3.96	031	0.755	0.925	0.892	0.489	1	
	CON	0.879826	3.687	0.437						
	ADP	0.877897	3.792	0.436						
	MSS	0.885425	3.841	0.46						
Product innovation	NEW	0.9674	3.468	0.873	0.932	0.965	0.927	0.524	0.505	1
	INCR	0.963299	3.631	0.651						

The bold diagonal elements are the square root of the variance shared between the constructs and their measures (no such measure exists for the single-item constructs)

SD standard deviation, *CR* composite reliability, *CA* Cronbach's alpha

[a]Calculated using Fornell and Larcker's [30] method

Table 13.2 Path coefficient

Path	Hypotheses	Std mean	Std dev	Std err	t statistics	Path coefficient	R^2	Inference
Leadership → product innovation	H$_1$	0.365	0.101	0.101	3.617	0.364*	0.356	Supported
Culture → product innovation	H$_2$	0.323	0.070	0.070	4.649	0.327*		Supported
Leadership → culture	H$_3$	0.479	0.074	0.074	6.653	0.489*	0.24	Supported

*Significant at level $p < 0.001$.

organizational culture. The small sample size of this study necessitates further replications with larger sample size. Realizing many potential limitations of this study, any generalization should be done cautiously.

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Chapter 14
Managing and Improving the Duration in Computing the Vehicle Speed: A Case Study

Mohd Akram Adnan, Mohd Akmal Suhaimi, Nor Izzah Zainuddin, and Tuan Badrol Hisham Tuan Besar

Abstract This chapter discusses the duration to compute the 85th percentile. As the computation of 85th percentile involves huge data depending on the study, it is important to have efficient tools to speed up the process of 85th data calculation and for the researcher to develop an 85th Data Calculator named 85DC to perform more efficient data calculation. Comparison has been made using 15 sets of data, and as a result the duration to compute 85th percentile has reduced from 22 to 26 % by using 85DC.

Keywords Component • 85th percentile • Percentile tools • Percentile calculator

14.1 Introduction

Spot speed study is a study of individual vehicle speed at a given specific location resulting the observed speed distribution of speeds. A thorough study includes the average or time mean speed, standard deviation, 85th percentile speed, median, and pace [1]. The 85th percentile is known as the speed at which drivers are observed operating their vehicles during free-flow conditions. The 85th percentile of the distribution of observed speeds is the most frequently used measurement of the operating speed associated with a particular location or geometric feature [2].

Commonly used equipment for data collection during the spot study is laser gun, radar gun, and other equipment. During the data collection, various tools such as laser gun, pneumatic road tube with automatic traffic counter, VBOX GPS, and others had been used [3]. Although many studies related to spot speed have been conducted and very minimum had discussed about the duration involved in the processing time to produce the 85th percentile, this chapter will concentrate on discussing the duration in producing 85th percentile [1, 4, 5].

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14.2 Literature Review

A study by Fizpatric et al. [6] focuses on 79 tangent sites in suburban/urban and rural areas. During the study, researchers looked on functional classification variables such as classification arterial, collector, and local, edge treatment curb and gutter versus shoulder, and speed limit. Besides, the study concentrated on geometry, classification of vehicles at horizontal curve of two-lane rural highway, and focusing at tangent and middle curve of the highway [7]. Other studies involve with the equipment for data collection, by capturing images and to be processed by computing the traffic flow, speed and density [8].

A study about trajectories from the Field Operation Test (FOT) and simulation-based data, to be analyzed and monitored during data management, was done, resulting in the output of start curve and end curve pathway along the curve [9]. The data collected need to be tabled and columnized to simplify the process of computing the 85th percentile. The arrangement of huge data either during site data collection or using simulation needs to be properly and systematically placed [1, 9, 10].

14.3 Process Flow

Figure 14.1 illustrates the process flow involving the 85th percentile calculator. The process relies on the data entry option. Once entered, the data will be calculated to produce the result for further action.

Fig. 14.1 Process flow chart
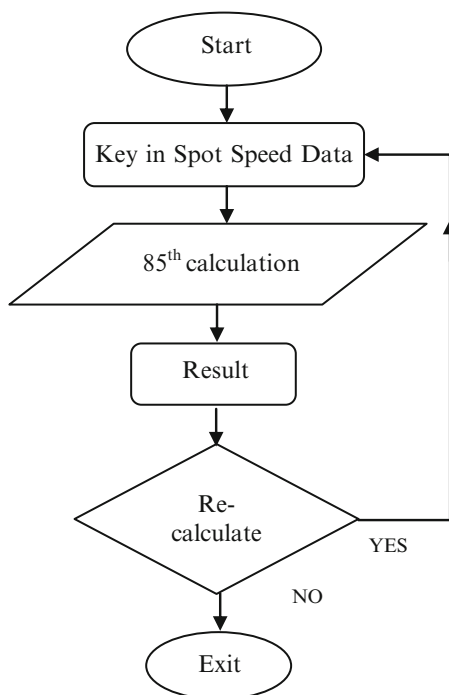
Frequency Distribution Table for Speed Data 1							
Speed (Km/h)	Class Midvalue,x	Class Observation in Class,f	Number of	f*x	Percentage of Observation in Class	Cummulative Percentage of All Observation	$f(x-\underline{x})^2$
30	34.9	32.45	0	0.00	0.00	0.00	0.00
35	39.9	37.45	0	0.00	0.00	0.00	0.00
40	44.9	42.45	0	0.00	0.00	0.00	0.00
45	49.9	47.45	1	47.45	3.33	3.33	711.11
50	54.9	52.45	1	52.45	3.33	6.67	469.44
55	59.9	57.45	6	344.70	20.00	26.67	1666.67
60	64.9	62.45	2	124.90	6.67	33.33	272.22
65	69.9	67.45	0	0.00	0.00	33.33	0.00
70	74.9	72.45	5	362.25	16.67	50.00	13.89
75	79.9	77.45	2	154.90	6.67	56.67	22.22
80	84.9	82.45	6	494.70	20.00	76.67	416.67
85	89.9	87.45	3	262.35	10.00	86.67	533.33
90	94.9	92.45	3	277.35	10.00	96.67	1008.33
95	99.9	97.45	0	0.00	0.00	96.67	0.00
100	104.9	102.45	1	102.45	3.33	100.00	802.78
105	109.9	107.45	0	0.00	0.00	100.00	0.00
110	114.9	112.45	0	0.00	0.00	100.00	0.00
115	119.9	117.45	0	0.00	0.00	100.00	0.00
120	124.9	122.45	0	0.00	0.00	100.00	0.00
125	129.9	127.45	0	0.00	0.00	100.00	0.00
130	134.9	132.45	0	0.00	0.00	100.00	0.00
135	139.9	137.45	0	0.00	0.00	100.00	0.00
140	144.9	142.45	0	0.00	0.00	100.00	0.00
145	149.9	147.45	0	0.00	0.00	100.00	0.00
			30	2223.50	100.00		

Fig. 14.2 85th calculation using excel

Figure 14.2 illustrates the cells within excel to compute the 85th percentile from the data collected.

Figure 14.3 illustrates the view for 85th percentile data calculator. The tool named 85th Data Calculator (85DC) was developed using Visual Basic platform in customizing and speeding up the process of computing 85th percentile. As discussed earlier, not many research has discussed the duration for calculation; thus, the 85DC was developed to optimize the duration for calculating 85th percentile.

14.4 Testing

The 85DC has been tested in computing 85th percentile of the collected data [3] for its functionality or Alpha Test. As the extension to the Alpha Test, Beta Test has been conducted on spot speed study, by using a real data collected from two sites at
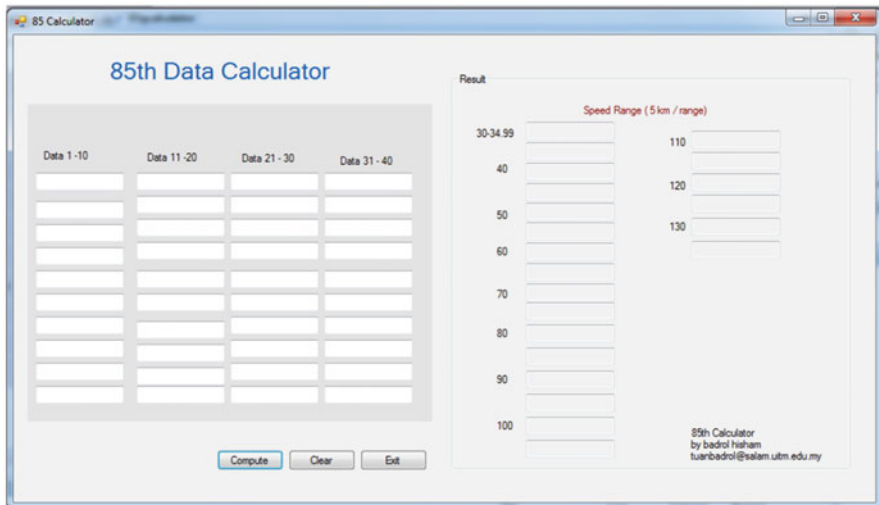
Fig. 14.3 85th data calculator

Table 14.1 Comparison of duration

	Researcher A	Researcher C
	Site A	Site B
Location	Curve start	Curve end
No. of vehicles	30	30
No. of data set	15	15
Duration not using 85DC	58 min	680 min
Duration using 85DC	45 min	50 min
Percentage time saving	23 %	27 %

Perak State. Each researcher is responsible for 15 sets of data, in which each data set consists of 30 vehicles from each site. There were two researchers involved in data collection, each of them was positioned at Curve Start (CS) and Curve End (CE).

14.5 Result and Conclusion

By using the same data sets mentioned above, the comparison of the duration in using and not using 85DC in computing the 85th percentile was recorded. The comparison between the duration in computing 85th percentile using Excel is shown in Fig. 14.2 for not using 85DC and Fig. 14.3 for using 85DC. The output of the result is summarized and shown below.

Table 14.1 indicates the reduction of the time consumed to compute the 85th percentile by using different Excel based and 85DC. Although the number of data

entered is the same, the manual arrangement between class ranges has caused some delays in using Excel. This has resulted in faster duration using 85DC.

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Chapter 15
The Effects of Brand Orientation, Brand Distinctiveness, and Design Innovation on the Brand Performance of the Malaysian Furniture Manufacturing Firms

Puteri Fadzline Tamyez, Norzanah Mat Nor, and Syed Jamal Abdul Nasir Syed Mohamad

Abstract The study develops and empirically tests a model of the effects of brand strategy and design innovation on brand performance in furniture manufacturing firms. Questionnaires were sent to 500 furniture SMEs operating in Malaysia, and 204 effective responses were returned. Confirmatory factor analysis is used to validate the constructs. Research hypotheses are tested using structural equation modeling. The proposed model fits the data well. The results show that brand orientation, brand distinctiveness, and functional innovation have direct effects on brand performance. Finally, implication and recommendations of these findings are discussed. The paper encapsulates the role of each dimension of brand strategy and product design innovation to determine a stronger brand performance in the furniture manufacturing firms.

Keywords Brand distinctiveness • Design innovation • Aesthetic innovation • Functional innovation • Meaning innovation • Typological innovation, brand performance

15.1   Introduction

This study examines the role of brand strategies which are the two independent theoretical areas, i.e., brand orientation and brand distinctiveness, in relation to SME product design innovation on their brand performance. Drawing on the brand

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strategy process theory by Yen and Wei [74] and the design innovation pyramid by Ratnasingam [60], it is argued that firms pursuing design innovation and brand strategy will tend to develop superior market dominance and allow them to achieve brand performance. Exploring these theoretical domains invites design innovation as a new kind of an innovation approach that can be used to support confirmatory test of its theoretical contribution of knowledge in the field of SME brand studies. The importance of market and brand performance is advanced as a key to a greater firm performance [46, 62, 70].

Brand performance in Malaysia is indicated by two certifications which are the National Mark of Malaysian Brand and Malaysia Pride Quality Mark that depict quality, excellence, and distinction of products by Malaysian companies. There are only two furniture firms that have succeeded in being certified with the National Mark of Malaysian Brand, whereas to date, another 13 leading furniture companies had successfully reached the Malaysia Pride Quality Mark [18]. The present study aims to shed light on these questions. Although some empirical research has been done on the performance effects of brand performance, comprehensive understanding is yet to develop. No studies examine the interplay of design innovation, brand orientation, and brand distinctiveness and how this nomological network influences brand performance. The present study makes a further contribution to this field.

Our objective is to develop and empirically test a model of the effects of brand strategy and design innovation in furniture manufacturing firms towards brand performance. Besides its contribution to the theory of small business branding, the study has implications for practitioners, allowing them to better understand the benefits of the synergy of both brand strategy and design innovation.

15.2 Literature Review

After reviewing the literature pertaining to brand performance, several main gaps were identified. First, it is obvious that little is known about the relationships of the antecedents of brand performance. While focusing on [74], the majority of studies focused on the importance of brand loyalty in determining brand performance in the context of customers [15], based on the brand team's, the customers', and employee's perception of the brand [15], and Dirichlet benchmarks as a brand performance measure [24]. Other researches focus on customers' satisfaction to perception of the brand's performance [14].

Yen and Wei [74] focused on brand orientation and brand distinctiveness along with innovation in determining a brand's performance. Motivated by their work, this research expands further the work of [60] which encompasses several unexplored dimensions that lately have attracted research attention in other disciplines [69]. Some of these unexplored types of design innovation appear to be important and worthy of investigation in the context of design-driven innovation.

Hence, this research intends to integrate the work of [74] with the study of [60] by investigating design innovation as a possible antecedent of brand performance,

rather than innovation in a general term. Therefore, it is proposed that a symbiosis of brand orientation and brand distinctiveness along with design innovation directly affects brand performance by enhancing the brand performance of a firm. Consequently, this framework helps to develop three hypotheses which are proposed in the next section.

A. Brand Orientation

Extensive research by Weerawardena [70], Hankinson [34], Cláudia Simões [16], Bridson and Evans [9], Baumgarth [8], Martin [48], Rampino [59], and Starkey and Tempest [64] have been conducted on brand orientation due to the increasing number of customers that have consistent hunger for branded products either through online shopping or directly from the store. However, little research has been done on the advantages of companies that are brand-oriented especially among SMEs as revealed by Krake [40], Weerawardena [70], Napoli [52], and Wong and Merrilees [71]. Conceptual development on brand orientation is carried out by scholars [16, 67], and other scholars focused on brand orientation through case studies [46, 70, 72]. Orientating the brand is a perfect choice for a long-term strategy that must not be an unseparated part of a firm's value [9, 22, 50]. The concept of brand orientation can be carried out as a whole, and therefore, it is considered as a multidimensional construct that consists of the firm's values, beliefs, behaviors, and practices towards brands [35]. Therefore, Bridson and Evans [9] suggested that brand capabilities are built through orientated organization value practices. Thus, it is hypothesized that:

H_1 Brand orientation is a positive determinant of brand performance.

B. Brand Distinctiveness

Levitt [43], Fulmer and Goodwin [29], and Macrae ([47] posited that brand distinctiveness is one of the premium principles in marketing theory and practice. Companies are currently striving to build brand distinctiveness to avoid being labeled as commodity companies [71]. Recognition of a brand or triggered brand associations is one of the benefits from being distinctive [11, 35, 36]. de Chernatony and Dall'Olmo Riley [19] clearly stated that brands are capable of being distinctive from others. Besides that, [31] reported that having a distinctive brand marks as a warranty of consistency, and this enables a better way for decision-making. Most scholars, namely, Goodyear [31] and de Chernatony and Dall'Olmo Riley [19] suggested that distinctive capabilities are critical to achieve their brand objectives. Distinctiveness is considered one of the most important factors in a brand's growth and much more substantial than differentiation as it produces a lasting brand when

pursuing distinctiveness, although both are important [11]. Hence, brand distinctiveness is the most fundamental and a prerequisite to develop a strong brand [70]. Thus, it is hypothesized that:

H₂ Brand distinctiveness is a positive determinant of brand performance.

C. Design Innovation

The process of innovation requires integrated alliances, outsourcing, and partnerships with other firms, institutions, and universities [55, 69]. Values are created and added when design synergizes with creativity, innovation, and strategy. This is carried out by applying creativity as an idea development, innovation as exploiting the new ideas, and branding as a tool of differentiation and finally designing the product or service that touches the emotions and experience of the users [1]. In fact, Omar [56], Fox [30], and Dunne and Martin [23] had proven that design contributes to twice the level of innovation in their companies. This implies that higher innovation reflects to higher success in market competitiveness. Identically, the combination of technology, design, and organizational innovation contributes to higher company performance [27].

Yen and Wei [74] agrees to the notion and added that design innovation also focuses on exploring new market potential and boosting the brand image. Abbing [1] and de Chernatony et al. [20] posited that even though design tends to be more innovative and more profitable and grows faster than other competitors, the application of design is in fact much broader than the aesthetics and the looks of the products. The technology development within the wood processing industry is driven by rapidly changing wood materials quality, increasing production as well as energy costs, increasing responsiveness to environmental pressures, and increasing consumer demand for wood products that are greatly enhanced in comparison to products from other materials [28, 57]. Abbing [1] and Brown [12] reveals that meaning innovation touches the mentality and emotion of the customers and does not involve the functional and aesthetics of the product itself [61]. Thus, it clearly signifies that design innovation is crucial for management [10, 23, 49, 54, 65]. Thus, it is hypothesized that:

H₃ Design innovation is a positive determinant of brand performance.

By integrating brand strategy and the design innovation pyramid of the brand performance, the main premise of the theoretical model as exhibited in Fig. 15.1 is that brand performance can achieve advantages in both local and foreign markets and in turn superior performance through deploying appropriate dimension of design innovation in the brand competitive strategies. All in all, the proposed research model is depicted in Fig. 15.1.
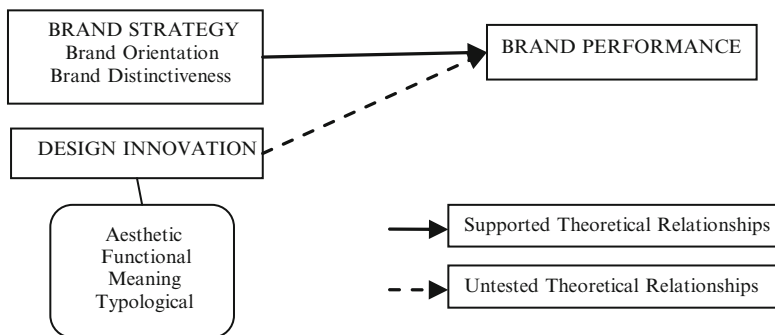
Fig. 15.1 The conceptual model adapted by [71]

15.3 Methodology

CEOs and marketing managers in furniture manufacturing firms located throughout Malaysia were selected as the target sample using stratified random sampling method. Brand orientation, brand distinctiveness, and brand performance questionnaires were developed by Yen and Wei [74]. The 27-item design innovation questions were adapted from Ratnasingam [60] which were grouped into four different dimensions: aesthetic, functional, meaning, and typological innovation. Nine hundred and ten furniture firms were drawn from SME Corporation Malaysia according to their sales revenue in 2011.

Overall, of the distribution of 500 samples, 204 usable questionnaires were received after elimination of missing data and outliers. The model was tested using structural equation modeling (SEM) techniques using AMOS 21. Scholars such as Byrne [13] and Hair et al. [32])suggested SEM as a rigorous tool to develop a reliable and valid measure. Previous studies on brand orientation also adopted SEM in estimating and testing complex systems of conceptual relationships. Thus, SEM provides an overall model fit and individual parameter estimate test simultaneously [32, 37, 42].

15.4 Findings

D. Reliability and Validity

This stage replicates the work of Hair et al. [33] which examines the construct validity through both the convergent and discriminant validity. Content validity is also assessed subjectively to measure the scale and characteristics of the variables involved [50]. The developed questionnaire was scrutinized by lecturers from Universiti Teknologi MARA, Faculty of Art and Design and Business

Table 15.1 Reliability and validity

Construct	Factor loading	AVE	Composite reliability	Cronbach's alpha
Brand orientation	0.796	0.64	0.91	0.91
Brand distinctiveness	0.856	0.73	0.95	0.95
Functional innovation	0.880	0.77	0.96	0.96
Meaning innovation	0.864	0.75	0.95	0.95
Aesthetic innovation	0.735	0.54	0.76	0.86
Typological innovation	0.759	0.59	0.80	0.87
Brand performance	0.798	0.64	0.85	0.91

Table 15.2 Discriminant validity

Correlation	BO	BD	FI	MI	AI	TI	BP
BO	1						
BD	0.526^{**}	1					
FI	-0.311^{**}	-0.576^{**}	1				
MI	0.287^{**}	0.548^{**}	-0.372^{**}	1			
AI	-0.141^{*}	-0.363^{**}	0.291^{**}	-0.239^{**}	1		
TI	0.370^{**}	0.453^{**}	-0.311^{**}	0.296^{**}	-0.207^{**}	1	
BP	-0.237^{**}	-0.385^{**}	0.508^{**}	-0.267^{**}	0.159^{*}	-0.214^{**}	1

BO brand orientation, *BD* brand distinctiveness, *FI* functional innovation, *MI* meaning innovation, *AI* aesthetic innovation, *TI* typological innovation, *BP* brand performance
**Correlation is significant at the 0.01 level (2-tailed)

Management, and the Chairman of the Malaysian Furniture Promotion Council (MFPC) for content validity.

In this stage, the AVE, composite reliability and Cronbach's Alpha were performed. AVEs above 0.5 are treated as the indications provided by the convergent validity. AVE also emerges from the two-step procedure as contained in the proposal of Anderson and Gerbing [2]. The composite denotes the amount of the scale score variance that is accounted for by all the underlying factors. Composite reliability, thus, corresponds with the more commonly used notion of reliability, as far as the classical theory is concerned. Composite reliability should equate or be greater than 0.7, as suggested by Hair et al. [32] (Table 15.1).

Discriminant validity adopts Pearson's correlation to assess the discriminant, as well as probe into the magnitude and direction of the correlational relationship [21, 33]. According to Ewing and Napoli [25], the correlation of 0.5 may be a distinct concept, while a correlation of 0.8 and above may be hinting that the lack of conceptual distinction has surfaced. Kline [42] suggested a specific criterion of $r < 0.85$. This is agreed by Byrne [13] and Tuominen et al. [66] who recommended that highly correlated constructs will not demonstrate discriminant validity. These results as presented in Table 15.2 show that the constructs are all below 0.8, suggesting that the discriminant validity is present between the constructs.

Table 15.3 Path analysis

Path				B	S.E	CR	P
H_1	Brand orientation	$\rightarrow$	Brand performance	0.460	0.143	3.22	***
H_2	Brand distinctiveness	$\rightarrow$	Brand performance	0.542	0.081	6.69	***
H_3	Design innovation	$\rightarrow$	Brand performance	0.792	0.144	5.52	***

*** p-value < 0.001

E. The Structural Model and Analysis of Paths

Test of fitness of the model used on the whole sample produces a χ^2 value of 1235.224 with the freedom of 970. Therefore, the CMIN/DF was reported to be 1.273. Referring to chi-square, the model does not seem to be compatible. However, the chi-square value offers a certain degree of sensitivity to the sample size. As another option, there are several indices which serve to be a potential indicator that can determine the goodness of fit. Noticeably, the TLI and GFI values were above 0.9 which suggests that the model can fit the data well. TLI, NFI, and GFI are close to 1, which suggests that the model and the data are also harmonious with one another [35].

GFI shows a reasonable value of 0.803. The RMSEA value was 0.037 and the 90 % confidence interval varies from 0.031 to 0.043. The narrow confidence interval of 0.012 suggests that the RMSEA value is precise and 0.05 implies that it has good fitness. The SEM test was performed which covers the estimation of path coefficients describing the relationships between dependent and independent variables and which covers R-square value which represents the amount of variance explained by the independent variable. Non-standardized regression coefficients are represented by the path coefficients, as exhibited in Table 15.3.

15.5   Discussion

F. Hypothesis One: Brand Orientation Positively Influences Brand Performance

The results of the structural model show that brand orientation positively influences brand performance (CR $= 3.22$, $p < 0.05$). This implies that the important role of brand orientation cannot be denied in terms of explaining brand performance. Brand orientation demonstrates a strong positive influence on brand performance [74]. More precisely, Ewing and Napoli [25], Baumgarth [8], Wong and Merrilees [72], and Urde [67] posited that it portrays a more positive influence in the perspective of awareness, loyalty, image, and reputation. In this respect, managers have to comprehend the development from a market to a brand-oriented company in order to elevate the brand orientation of their companies [7, 58, 63]. Supplementary

to this, orientating a brand in a firm will reflect a change in a customer's taste which strengthens the position of a brand before it enters the market. However, to escape from a mature original market or a decline of market, a firm must consider a long-term perspective by investing the brand over a long period [26, 39, 51].

G. Hypothesis Two: Brand Distinctiveness (BD) Is a Positive Determinant of Brand Performance

The finding reveals the significant association between brand distinctiveness and brand performance (CR = 6.69, $p < 0.05$). This result is congruent with Wong and Merrilees' [73] work which recommends that a strong brand requires differentiation from the firm's perspective. Due to that, customers will have higher willingness to pay more for a brand which owns a set of unique values, unlike the other brands [38, 44, 62]. In essence, brand distinctiveness is not only a determinant towards brand performance but also towards brand equity and success [41, 68].

H. Hypothesis Three: Design Innovation Positively Influences Brand Performance

This study indicates that product design innovation does promote brand performance (CR = 5.52, $p < 0.05$). Ng [53] and Urde [67] revealed the real challenges of today's designers in putting emotional needs or meaning innovation as soft attribute in products rather than technologies as hard attributes. This interpretation contrasts with that of Bala [6] and Owen [57] who argued that the Malaysian furniture industry is urged to innovate with the latest manufacturing technologies to remain competitive as envisaged by the government in the NATIP plan (National Timber Policy 2009–2020) in achieving RM 16.0 (USD5.24) billion furniture exports by year 2020. Italian companies that have strong brands as well as unique designs are good examples of applying the "design push" or a combination of functional and meaning innovation as stated by Lindman et al. [45] and Verganti [69].

15.6 Implications and Conclusions

An empirical study was conducted to identify determinants of brand performance for the furniture manufacturing firms in Malaysia. The results demonstrated that brand performance can be explained in terms of brand orientation, brand distinctiveness, and design innovation. These findings confirm the results of Yen and Wei [74], Wong and Merrilees [72, 73], Antonia Ward and Lesley Morris [3], and

Reichheld [61]. This research has combined branding and design innovation domains to propose how branding might facilitate better brand performance. The proposed model could help decision-makers to identify key variables of design innovation that can be controlled on a managerial level depending on their firm's ability. Developing an improved strategy or model by fine-tuning these set of variables of design innovation to their structure of firm will enable to develop a more design innovative environment with a synergy of orientated, distinctive brand to create a superior competitive advantage.

Brand orientation and brand distinctiveness were confirmed as antecedents of brand performance, a brand process model applied by firms to perform brand activities in their organizations. The findings highlighted the importance of these two elements of branding which need to have consistent monitoring to ensure competitiveness among the players in the industry. Supplementary to this, design innovation particularly functional innovation had been highly emphasized in the National Timber Industry Policy to enhance market penetration and strengthen the domestic market [17].

Hence, functional innovation may be a good option to be adopted by furniture manufacturing companies in Malaysia. According to Antonia Ward and Lesley Morris [3], companies in the UK that had invested in design have higher turnover than non-design-led companies. However, this strategy needs to be decentered to fit acceptable dimensions such as the role of designers and manufacturers in Malaysia.

The search for a Malaysian identity is a retrospective effort in innovation, and it is possible to turn to the traditional arts and culture as a source of reference [4]. Ultimately, firms should be able to create different designs that will appropriately fit to numerous markets around the world. Asian designs would be respected by the world through that status [5].

To conclude, this research provided a good starting point in investigating brand performance in non-Western countries. A strong brand will create a valuable asset which would avoid any imitation and difficulty for any competitors to copy [69, 75].

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Chapter 16
Supply Chain Robustness and Resilience for Firm's Sustainability: Case Studies on Electronics Industry

Ainul Haniza Mohd Rashid and Siew-Phaik Loke

Abstract An increased uncertainty and potential losses caused by the natural disasters expose firms to a greater level of catastrophic risks. Manufacturing firms are at more vulnerable position due to global sourcing and supply activities. In this paper, we aimed to propose a conceptual framework capturing the importance of supply chain (SC) robustness and resilience in firm's sustainability. A case study approach was adopted where four in-depth interviews were conducted with the SC professionals within the electronics industry in Malaysia. It is hoped that the research outputs contribute to deepen our understanding on the factors that constitute an effective SC risk management practice to allow firms to learn and become better prepared to overcome operational interruptions, minimizing losses and enhancing business sustainability.

Keywords Supply chain • Robustness • Resilience • Organizational sustainability • Malaysia

16.1 Introduction

News headlines on natural disasters come not as a surprise to us off late, and the aftermath impacts are enormous on firms in terms of the financial losses. Catastrophic events due to environmental influence such as earthquakes, hurricanes, tsunamis, and floods have affected the entire supply chain (SC) globally where the infrastructure and production processes were interrupted. SC is affected and business operations are put to a halt for a certain period of time until recovery takes place, or some were even shut down. These strategic and financial implications on the firm's sustainability have become a key managerial focus. For example, in the 2011 earthquake and tsunami event, many Japanese firms operating in the industries of automotive, electronics, semiconductors, steel, and chemical were affected

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mostly due to these natural disasters. Based on an extensive analysis by Pfohl et al. [1], they observed that demand risks affect severely on the service provider, whereas supply risks influence greatly on the industrial and trading firms. In fact, firms today are exposed to a hypercompetitive environment due to the advancement of information technology and globalization. Brindley [2] urged these firms to be well prepared in managing their SC risks. Supply chain risk management (SCRM) is a contemporary approach that could help firms to make financial and operational decisions in managing their SC [3], and it is valuable for assessing and monitoring the associated risks systematically [4]. Indeed, an effective and efficient SC leads to greater competitiveness [5]. A decade ago, Hauser [6] already noted that risk-adjusted SC management positions the firms to compete better in an industry.

The catastrophic events have placed the firms in a vulnerable position, and there is a need for these firms to have plans on disaster recovery so that they can sustain and continue to prosper. Thus, as observed by Wagner and Bode [7], there is a proliferation of research dedicated on the areas of SC risks. Previous researchers such as Sodhi et al. [8] and Husdal [9] highlighted the needs for more studies on firms overcoming the challenges on risk exposures on the firm's SC. Why are we studying the risk management within the electronics industry? Examining the SC risk practices caused by catastrophic events in the Malaysian electronics industry deepens our understanding as how to better prepare the managers in this sector to minimize the operational disruption along the entire SC. This industry is particularly vulnerable because of the product nature where careful packing, handling, and transportation are required [3].

In this paper, we proposed a conceptual framework which is drawn from a comprehensive literature on SCRM and four in-depth interviews conducted with the SC professionals in the Malaysian electronics industry. We posited that the SC robustness and resilience have a positive impact on the firm's sustainability. We structure our paper as follows: Firstly, the literature related to SCRM, business continuity, and sustainability is discussed. Secondly, we present the conceptual framework and development of propositions. We then discuss the methodology used in the current study. The research finding and implications focus on the description of current SCRM approaches adopted by the interviewed firms. Finally, the paper ends with a brief conclusion.

16.2   Literature Review

A. Risk and Supply Chain Risks

> Risk is the variance of the probability disruption of possible supply chain outcomes with negative impact on the supply chain performance, their likelihood, and their subjective values. ([10], p. 1404)

In examining the SC management, scoping into the risk element is necessary. Scholars in prior studies (e.g., Hallikas et al. [11], Shapira [12] and Yates and Stone [13]) noted the relationship of risk on the adverse events (from cost perspective) with the probability of its occurrence [14]. Jüttner et al. [15] and Zsidisin et al. [14] are some of the pioneering researchers to define and conceptualize SC risks. In this paper, we referred to the works by Christopher and Peck [16] in classifying risks. Here, risk for a firm is divided into (1) process and control risks, (2) supply chain risks, and (3) environment risks; and the risks derived from catastrophic events fall into the third category [7, 17]. Similarly, Deleris and Erhun [18] argued that SC risks can result from the production/operation, new technology, social, natural, economy, government, and legal regulation. Common natural disasters such as hurricane, earthquake, and tsunami are included in this context.

Jüttner [19] found that impacts from these catastrophic events require firms with global presence to realign their SC. Closer working relationships among SC partnering firms are needed. While supplier network risks range from insignificant to very probable [11], a firm's risk composition for its portfolio is becoming more complex due to changes of market and industry conditions with new risks emerging due to collaboration [20]. The Cranfield School of Management (as cited in Jüttner [19]) identified the causes for the new risks as follows:

- Globalization of supply chain
- Reduction of inventory holding
- Centralized distribution
- Reduction of the supplier base
- Outsourcing
- Centralized production

The notion of agency theory [21] in which the principal delegate works to the agent has shaped the buyer-supplier relationship. In the context of SC management, the purchasing firm is the principal, whereas the supplier is the agent. In order to strengthen this buyer-supplier relationship, a set of skills is required [22]. According to Vanany et al. [23], risk and uncertainty in managing the SC are crucial consideration in decision making. Since all firms attempt to minimize any potential losses, implementation of supply risk assessment is paramount especially in contracting new suppliers [24]. However, Zsidisin et al. [14] noted that extensive risk assessment on established supplier is not required.

All in all, firms that source globally are exposed to greater risk [25]. Firms might not be able to totally eliminate risks from their SC, but appropriate risk assessment and practices can help firms to overcome these challenges.

B. Supply Chain Risk Management, Robustness, and Resilience

> SCRM as a collaborative and structured approach to risk management, embedded in the planning and control processes of the supply chain. It aims to handle risks that might adversely affect the achievement of supply chain goals. ([26], p. 327)

Supply chain risk management (SCRM) generally emphasizes on SC management and its associated risks [4]. SCRM is said to be a novel strategy that is helping firms to reduce SC risk and vulnerability. According to Norrman and Jansson [4], risk analysis on SC evaluates and assesses future events and trends which might bring adverse impacts to the firms. This largely aims to prepare the managers to manage these issues so that the firms can continuously manage to thrive and survive. While the study in White [27] identified three activities (i.e., risk identification, estimation, and evaluation) involved in risk management, Sodhi et al. [8] have systematically outlined activities involved in a firm's SCRM as follows:

- Risk recognition and identification
- Risk assessment
- Risk mitigation
- Responses to risk incident for both operational risks and catastrophic risks

Pfohl et al. [1] added that the fundamental elements of SCRM consist of business continuity management, learning, and process continuity that include performance measurement, continuous evaluation, and reevaluation.

What is robustness? A robust SC can be witnessed if the firm could endure changes from environments with no adaptation [28]. Robustness reflects the capability of a firm to accommodate and deal with unanticipated events and yet able to maintain desired outcomes. Tang [29] noted that a robust strategy is useful not only for measuring and capturing fluctuations; it also greatly leverages the firm's ability to overcome challenges due to disruptions. For example, firms can adjust production plan and reroute transport networks.

However, under certain circumstances where the firm is forced to deal with unexpected disruption in its SC, its ability to survive can be demonstrated through the level of SC resilience [30]. The higher the level of a firm's resilience is, the greater the ability is for the firm to bounce back to its original functioning state [16]. Coutu [31] termed it as the ability "to bounce back from hardship." Therefore, a resilient SC enables firms to quickly return to its initiate state even when its operational functions are interrupted [32].

C. Firm's Sustainability

According to Brindley [2], SCRM relates to the coordination or collaboration efforts in managing supply chain risks among the partners in order to ensure the

Fig. 16.1 Conceptual research framework
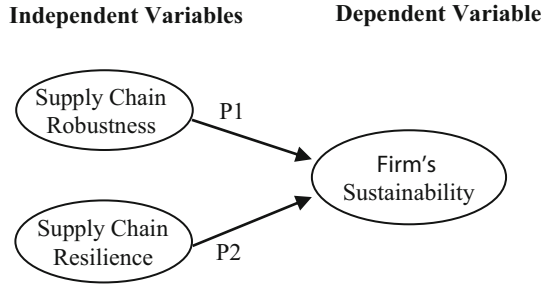
firm's profitability and continuity. Effective SCRM practices can yield continuous improvement in SC operations [33]. Understanding the elements of SC risks is critical for the firm's competitiveness. Firms must be cautious because a supplier's failure in delivering inbound purchased goods or services can have a detrimental effect for the purchasing firm, and oftentimes, the chain effect can spill over throughout the entire downstream SC [16, 17].

16.3 Model Development and Proposition Formulation

It was observed that very few empirical research evidences have been dedicated to examine the SCRM practices in a buyer-seller relationship setting. Thus, we strongly believe that an exploration onto this dyad perspective would be valuable. Dyadic relationship is reflected through two parties within an SC, who are the buyers and suppliers. The conceptual model illustrates the relationships between SC robustness and SC resilience on the firm's sustainability (See Fig. 16.1).

A. Supply Chain Robustness and Firm's Sustainabiliity

The SC robustness of a firm provides a leveraged platform for the managers to efficiently formulate and implement its contingency plan. It thus closely matches the firm's potential loss to the cost savings and profitability targets. Tang [29] made an interesting observation, and he argued that a robust SC often leads to greater level of firm's resilience. This is largely due to the increased dependency among SC partners and enables them to work more collaboratively for win-win situation. Thus, the breakdown of one supplier could bring a spillover negative impact damaging other partnering firms that are located downstream of the SC [17]. Generally, business continuity relies on the robustness of an SC. Thus, we posited that:

P1 Supply chain robustness is related to the firm's sustainability.

B. Supply Chain Resilience and Firm's Sustainability

Previous empirical findings showed that resilience strategies are required for firms that are challenged by disruptive changes [16, 34]. According to Ponomarov and Holcomb [35], these SC resilience strategies are useful for dealing with unexpected events so that firm operations can return to its initiation stage. In fact, resilience can be a source of competitive edge; if the firm responds better and faster, it can certainly perform better than its rivals. Xu [36] found that firms with high resilience can tap into the opportunities and better serve their customers. This could greatly enhance the firm's competitiveness and survival. Thus, we posited that:

P2 Supply chain resilience is related to the firm's sustainability.

16.4 Research Methodology

In our study, a similar approach used by Manuj and Mentzer [5] was adopted. This paper was written based on data drawn from four in-depth qualitative interviews: two with senior SC managers and two from senior executives from an electronics industry in Malaysia. These SC professionals were from Japanese-based electronics manufacturer and its component parts supplier. Here, we delineated the manufacturer as Company A and its suppliers as Company B to preserve anonymity of the participating firms (Table 16.1).

The duration for these interviews ranged from 60 to 90 min. All interviews were recorded, and detailed notes were taken.

The discussions focused on the SC risk mitigation responses deriving from natural catastrophes and its impacts on the business survival. The interview protocols consisted of five main categories: (a) opening (e.g., introduction of interviewer and interview participant, objective of the study, assurance of anonymity, and permission for recording), (b) profiling of the company and the interview participant (e.g., company background, title of the SC professional, and his/her main roles and responsibilities), (c) SC management (e.g., issues related to managing the material and information flow, inventory, and safety stock level), (d) SCRM practices (e.g., risk consideration and approaches, electronics industry coalition citizen), and (e) firm's sustainability (e.g., business continuity plan, in-house production, and outsourcing strategy).

Table 16.1 Profiles of participating companies

Company A	Company B
The principal (buyer) in the dyadic relationship setting	The agent (seller) in the dyadic relationship setting
It is a manufacturer of electronics products	It is a tier-1 supplier of electrical component parts to Company A
	It has been awarded several times as the best supplier to Company A based on outstanding performance primarily in quality, cost, and delivery (QCD)

16.5 Research Findings and Implications

The SC robustness illustrates the firm's ability to face uncertainty from environments without having to adapt and adjust to the changes. We found that there is a general agreement that a robust SC is very much needed for global supply networks and it is valuable to sustain both material and information flow along the SC. Meanwhile, the SC resilience is demonstrated through the firm's ability to survive after it was affected by unanticipated interruption in its SC. In managing the supply shortage due to catastrophic events (e.g., tsunami and Thai flood), the interview participant (from Company A) noted that different approaches are used to source necessary component parts, and such decision is largely made dependent on the amount of quantity and types of the needed parts:

> Like I said it is very difficult, it is case by case (basis). If possible we want to localize all the parts. In certain conditions, we cannot.
> ... But now I think we have learned. We tried to reduce parts imported from Japan. Even our suppliers have learned from this. They try to (reduce parts from Japan), when they produce this (item) they make sure the other factory is available to provide sufficient production of supply.

From the interview discussion, we witnessed the trend of Japanese manufacturers in acknowledging the crucial roles of SCRM. The SC manager (from Company A) noted that they require their suppliers to communicate the business continuity plan to ensure the consistent flow of materials for production:

> First, they gave us their recovery plan. And, from time to time they will update how their recovery plan work and so on and we'll monitor based on this information and other steps we have taken earlier like whether (to) get substitute or (to) buy from open market at the same time. But the important thing (is) if they still want to continue (to work with us), they have to give us the recovery plan.

And, the component part suppliers (from Company B) also reported such specific requirement from the manufacturer, as shown below:

> Ok, this actually happen after the Tsunami and Thai flood then everybody (become) aware of this what you called as business continuity plans, the BCP.
> When this BCP or risk management is enforced by our customer it means that they want us to have some business continuity plans in case of major disaster.

Indeed, while firms have no control over environmental variables such as natural disasters and catastrophic events, adoption of risk management practices provides a safety net in buffering firms from operational disruption and business discontinuity.

16.6   Conclusions

In this paper, drawing data from interviews, we proposed a conceptual framework highlighting two important factors, robustness and resilience of SC that are leading to a firm's sustainability particularly in the electronics industry. We found that to mitigate risk along the SC requires mutual trust and high quality of communications. Such collaborative and integrative relationship can be greatly strengthened only if all these SC partners understand their roles and responsibilities and act accordingly [37]. A strong commitment from all partnering firms can thus help stabilize the entire SC which would then contribute to minimize the risk disruptions [38] and to increase the firm's survival. It is also important that companies participating in SCRM perceive risk as mutual risks and achievements of SCRM are therefore mutual achievements [19].

It is hoped that our research findings add values to the current state of understanding, particularly within the electronics industry, how SC robustness and resilience affect the firm's sustainability. We also hoped that our study, documenting the SCRM practices, enriches this research area that is known to be scarce in developing countries like Malaysia. This study however has two limitations. Firstly, since the sampled respondents interviewed only provided information between the dyadic relationships, we might have failed to capture the complexity within the multi-tier SC. Therefore, caution should be exercised in generalizing our findings. Secondly, we have only included two important determinants, i.e., SC robustness and resilience, for firm's sustainability; hence, there is a need to include other variables such as SC flexibility, agility, security, and visibility in future research. We believe that those variables could greatly enhance the accuracy of prediction of firm's SC performance and its survival.

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Chapter 17
Generation Y and Job Satisfaction: Work Styles, Professional Expectations, and Career Concerns

Sharizan Sharkawi, Amina Josetta Kayani, and Mazlina Ahmad Zayadah

Abstract For about one decade now, the Generation Y has been entering the workforce in large numbers, which has given them the power to reshape the rules of play at work. Gen Y employees share many of the values of hard work and social consequences and demand more individual treatment and flexibility in training, work assignments, and work schedules. As the major test that faces organizations today is how to enhance job satisfaction within this new generation, this conceptual study aims to explore the work styles, professional expectations, and career concerns of Gen Y employees as the factors that could enhance their job satisfaction and to develop a preliminary job satisfaction model applicable to the Malaysian workforce. In-depth review of past literature was also made to further understand the elements that would lead to Gen Y more fulfilled at the workplace.

Keywords Generation Y • Job satisfaction • Work styles • Professional expectations

17.1 Introduction

Organizations today are seeing the arrival of the new generation of employees – the Generation Y (Gen Y – also referred to as the internet or dot.com generation, millennial, generation next, echo boomers, generation net, and nexters; [1–3]. As more baby-boomers retire, this sizable generation is entering the workforce by storm. This phenomenon has ignited concerns among academics and practitioners alike, over the repercussions of this new generation may have on our twenty-first

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century workplaces. At the forefront of these concerns is the notorious reputation Gen Y employees have for their unorthodox approach towards careers. They have different expectations than their previous generations, who mainly represent the management in organizations, which then results in a lot of conflict and frustrations to both parties. There is much agreement that Gen Y differs from previous generations in terms of work-related characteristics [3]. Nowadays, it is common to hear managers complaining about the newly hired and young employees as lacking in social skills, having little respect for authority, and not loyal to employers. The Gen Y is also described as "want it all" and "want it now", in terms of good pay and benefits, rapid advancement, work/life balance, interesting and challenging work, and making a contribution to society.

17.2   Understanding the New Breed of Employees

A. *Lack of Research Focus*

The major test that faces organizations today is how to enhance job satisfaction within this new generation that is characterized to be tech-savvy, entrepreneurial, and independent. Clearly, there is no one-size-fits-all management solution. Past researches on job satisfaction and motivating factors of Gen Y employees have proposed findings pointing in various directions. Meier and Crocker [4] highlighted factors managers must focus to motivate Gen Y: management styles, work relationship, work flexibility, and compensation. A lot of emphasis has been put on compensation as the main motivating factor [5] such as attractive salary, incentives (in a form of training and development, pay-for-performance strategy, and stock options), and nonfinancial awards (e.g., performers have access to top management leaders). Ng et al. [6] on the other hand claimed that opportunities for advancement, good people to work with and report to, developing new skills, and work-life balance are the desired work attributes of Gen Y.

However, far too little attention has been paid by researchers to understanding work styles, professional expectations, and career concerns of Gen Y employees. As a matter of fact, these factors have been highlighted as the three most important factors of job considerations among Gen Y [7]. In addition, it should be highlighted that most of the past studies on Gen Y have been undertaken by Western scholars. There is a lack of empirical research conducted to examine factors that enhance job satisfaction specifically among Gen Y in Malaysia. In Malaysia, approximately 36 % of the labor force is aged 29 and under – that is about 3.9 million Gen Y [8]. They are the ones who will shape the country's social, economic, and political landscape in the future. Thus, it is important to find out what could enhance satisfaction among the Gen Y in order to help organizations in Malaysia improve retention, increase productivity, and eventually boost companies' financial performance.

17.3   Sizing Up the Gen Y

Gen Y has grown up in the digital age. Having lived in a digitally connected and globalizing world, Gen Y is the most technically literate, educated, and ethnically diverse generation in history [9]. They seek intellectual challenge, need to succeed, search for those who would help in their professional development, strive to make a difference, and measure its own success. They are competitive in nature but prefer to perform meaningful work that betters the world and working with committed teams with shared values. According to Lewis [10], Gen Y has mastered technology that multitasking has become a habit. This is evident by how they tend to instant message, listen to iPods, and revise a report all at once in their workplace.

Tolbzie [11] pointed out that Gen Y are also sometimes referred to as the "Trophy Generation" or "Trophy Kids" based on the emerging trends of rewarding everyone for participation in competition or challenge, rather than for winning. They are also adversely affected by the high rate of divorces and the "chain-to-work" life among their parents which did not appeal to them. As a result, Gen Y is thought to be skeptical to long-term commitments and is said to desire greater flexibility in their career [12].

A. *The Challenge to Unlock Their Potential at Work*

Weyland [13] drew some interesting conclusions about Gen Y. He referred this generation as complex people with many contradictions. They are technology savvy but highly creative. They are environmentally conscious yet highly mobile. They expect instant rewards but also demand continuous development. They think like entrepreneur but tend to value relationships over money [13]. This puzzles employers as how to best manage and enhance their job satisfaction. Joel Stein, Times magazine (2013), claims that Gen Y could be a great force towards positive change and that according to their great mantra "challenge convention- find new and better ways of doing things" might definitely help organization to achieve greater heights. Fortune magazine (2007) reported that they are destined to be the most high-performing generation in history. The key is to find out how to unlock their potential and engage them in a workplace towards enhancing job retention and satisfaction.

17.4   Job Satisfaction and the Gen Y

Job satisfaction is one of the most researched upon topic for the past few decades. Many studies vary in defining the term job satisfaction. In some instances, employee's job satisfaction has been associated with how people think, feel, and

perceive the jobs [14]. Job satisfaction results from job appreciation or job achievement values and termed as 'pleasurable emotion' [15]. Luthans [16] refers to job satisfaction as an outcome of employee perceptions about the importance of the things that are provided by their jobs and an emotional response to the job that can only be inferred, outcomes of the job either meet or exceed expectations, and attitude towards the job. On a related note, Oshagbemi [17] defines job satisfaction as an emotional response that occurs as a result of the interaction between the worker's values concerning his/her job and the profits gained from the job.

A. Antecedents to Job Satisfaction

Many different constructs have been researched as antecedents as well as consequences to job satisfaction. Researchers have frequently described job satisfaction as a complex phenomenon with unclear constructs that influence an employee's positive feelings towards work. Findings from studies as to which factors are predominant in influencing job satisfaction are vast and there have been some inconsistencies with conclusions to research which warrant further investigation. This is especially the case when several cohorts of employees make up the research sample. There are many factors ranging from the physiological, psychological, and social needs [18]. Personal needs make up the most important aspect of workers' satisfaction. However, work choice, the work itself, its place, working conditions, the level of knowledge required, its goals, leadership styles, wage, relationships among workers, and safety are considered as the other most important variables that affect satisfaction [7].

Feelings of an employee towards his/her job are influenced by myriad of forces caused by complex personal and situational circumstances surrounding that particular individual [19–22]. As presented by Herzberg under his Two Factor Theory, satisfaction is outlined by a multidimensional perspective. This theory suggests that job satisfaction is an outcome of two factors: hygiene factors (i.e., extrinsic, e.g., pay, work environment, and job security) and motivational factors (i.e., intrinsic, e.g., autonomy, recognition, and sense of accomplishment). Hygiene factors prevent or increase dissatisfaction, but do not lead to satisfaction. Hygiene factors prevent or increase dissatisfaction, but do not lead to satisfaction; whereas motivational factors contribute towards job satisfaction thus, increases satisfaction of employees at work place. Employers that employ these tactics (recognition, achievement, work itself, advancement, and possibility of growth) experienced greater job satisfaction and increased production. One would think that pay rise, more fringe benefits, and better work conditions could alleviate dissatisfaction at work and improve employee job satisfaction and motivation, but many management of organizations are perplexed when this solution did not work.

Fig. 17.1 Proposed job satisfaction model of generation employees
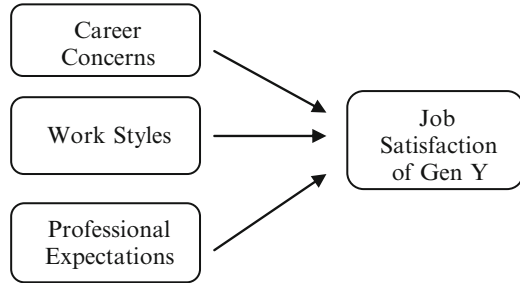
B. Focusing on the Quintessential

Rather than reinventing the wheel and delve into saturated factors such as salary and benefits, this paper is grounded in elucidating ways to increase job satisfaction among Gen Y employees specifically through addressing their work styles, professional expectations, and career concerns as the main constructs in our study. Figure 17.1 illustrates the proposed conceptual framework. Underpinning the conceptual framework for our proposed study is a survey conducted by Robert Half International and Yahoo! Hotjobs in 2008. The proposed study takes one of the greatest challenges facing today's organizations and intends to feed back results and recommendations on how to deal with the Generation Y employees. Work styles, professional expectations, and career concerns are, by far, considered the most critical factors that motivate Gen Y and what they expect from their employers. For the purpose of this study and as supported by the Herzberg Two Factor Model, salary and benefits are not included in the proposed study. As stated by the theory, salary and benefits are hygiene factors where it only prevents dissatisfaction but do not increase satisfaction [20].

C. Career Concerns

Concern about career is considered as one of the top most important aspect to a Gen Y in any organisation. Every Gen Y is very eager to ensure they get growth and development and move up the ranks in shortest time possible. Thus, they are always hungry for stimulation and like to be challenged. They are also concerned about having a guaranteed employment hence making sure that they have continued financial security and job stability.

According to Baruch [23], a career involves a process of progress and development of individuals. Arnold [24] defines a career as a sequence of employment related positions, roles, activities, and experiences encountered by a person. With regard to their careers, Gen Y have a drive for career success and security, craving for opportunity and responsibility [25]. Their own development is so important to

the extent that they expect substantial contribution from their employer in this area. Reported in the survey by Robert Half [7], the top reason why Gen Y would leave a company is when there are no opportunities for career development.

The five most important factors under career development for Gen Y in order of importance are promotion and growth, achievement at work, career path planning, training and development, and challenging work [26]. While traditional linear career structure within the same organisation is often sought after, there are however more evidence of transactional and short-term relationship happening as indicated by Arthur [27]. It is estimated that a typical Gen Y will have had ten jobs by the age of 38. The term "job for life" no longer exists and Gen Y will leave an organisation once they feel no opportunity is given or if they feel they are becoming stagnant. Another theory by Hall and Mirvis [28] described that a career is an "individual" thing rather than an organisation, who takes responsibility for their own career. This "individual" thing is what the Gen Y focus at, which is their livelihood and career satisfaction.

Therefore, it is fundamental for employers to understand that Gen Y long for continuous development and is always seeking for challenging tasks. Employers should offer career progression that is nontraditional which may involve changing functions, industries, and sectors [13]. The onus is also on employers to establish a new career path opportunities and make known to them that options are available for them to assume new roles as soon as they are ready to do so. Cross-functional projects could be encouraged to stimulate the high interaction and connection that Gen Y have with people.

According to the PricewaterhouseCoopers' (PWC) 12th Annual Global CEO survey in 2008, training and development are the most prized benefits among the graduates compared to cash and bonuses. They understand the potential power of skills and knowledge could benefit them in the long term rather than having the instant cash and bonuses. Gen Y recognise that this is the real benefit that could increase their individual opportunity of development and advancement in the future. Hence, employer should create a continuous learning environment where skills are developed at a steady pace.

In view of the past literature as highlighted above, career concerns play an important aspect to the job satisfaction of Gen Y. There is evidence to consider that career growth and development, continuous learning and skills enhancement can be contributing factors towards the relationship between Gen Y's career concerns and job satisfaction.

D. Work Styles

Researchers concur that the major challenge which faces organizations today is how to attract, engage, and retain Gen Y employees who because of their unprecedented exposure to a totally different environment in growing up have altered their experiences and attitudes towards work [29–31]. The proliferation of the internet

and social networks, for instance, has spawned a new breed of employees who openly broadcasts their likes and dislikes without hesitation. Work styles like preferences in attire, choices in communication, work-breaks, and need for leisure have all been given a fresh breath compared to the times of the baby-boomers and even Generation X [33].

According to Arnold [24], Gen Y listed work environment as a motivational characteristic that they are looking for in the workplace. They seek camaraderie, friendship with coworkers, and working with people that they enjoy working with. They do not expect to be stuck at their workstation all day without having any communication with colleagues. They seek out for a workplace where they can have a good time. Many companies in the Western countries have started to embark on this by giving free trips to the movie, summer half days, and company outings that bring workers together. Creative perks although small are ways companies had initiated to keep Gen Y employees fresh and motivated.

Generation Y wants even more flexibility in the work-life balance, compared to the previous generations. Gen Y puts priority in fulfilling relationship with family and friends and will make sure that their jobs could accommodate their personal lives [32]. They are also very open to working from home and have no issue to working anywhere and at any time. As they are always connected with the support of technology, work can be mobile. However, Gen Y grew up having more leisure time than the earlier generations. They are quite averse to working long hours and high pressure work that may not interest them if there is no extra compensation [5].

Thus, jobs assigned to Gen Y must be carefully thought out. They crave jobs that have clear set goals and ensured quick completion for them to move on to the next. They are always in search of challenge and readily willing to assume responsibility. They do not like to sit back and would feel restless if no task is given to them. Gen Y grew up being a multitask individual in various aspects of life, and this can be observed by the multiple tasks that they have to carry out in school, sports, and at home [4]. Parents of Gen Y made sure that their children do not miss out on opportunities and thus enroll them in all kinds of activities.

Therefore, based on the literature as presented above, many elements of work styles that appeal and reflect positively to Gen Y's values will be judged favorably and contribute to the development of congruency between Gen Y's work styles and job satisfaction.

E. Professional Expectations

Besides general work styles, cited in literature, are the Gen Y employees who bring along professional expectations with lower levels of trust and loyalty to corporate structures due to constant exposure (especially through social media platforms) to corporate scandals and incidences of corporate downsizing [33]. Martin [2], for instance, refers to this generation as extremely digitally savvy, rejecting micro-management and having a thirst for empowerment as well as autonomy. Inevitably,

this has led to the need to adjust management styles and more importantly to understand the actual demand towards management in terms of professional expectations.

As with professionals of all ages, the quality of relationship of a Gen Y employee with his/her superior is directly linked to job satisfaction. One has to remember that Gen Y is accustomed to depending on the attentive teaching from their parents and teachers. As a result, they are more likely to expect a similar relationship with their superior and look forward to regular feedback [5]. From the survey conducted by Robert Half International [7], tops the list to what Gen Y described their dream boss were good management skills, pleasant and easy to get along with, understanding and caring, flexible and open minded, and respects/values/appreciates employees. This group has high expectation on who they look up to as their boss. A boss with good management style is in the best position to motivate Gen Y employees. Thus, pairing these employees with a weak leadership that has high level of bureaucracy will only make the Gen Y more prone to leave even if they enjoy the job [13]. Gen Y employees are motivated when given the freedom to work as they please. They do not like a superior to hover at them every second but they do expect regular feedback. They want to know how well they have done on a particular job and would not mind receiving a constructive feedback, whether it is positive or negative. However, the superior must be able to guide and help train them to the best they can. Any feedback needs to be given honestly and clearly, and that mutual respect in a relationship is of vital importance to Gen Y.

This leads to the high professional expectation of Gen Y of their managers. They hope for their superior to be more of a mentor and supporting coach. Providing them a big picture so that they are able to understand how their everyday work contributes to the overall impact and success of the organisation. According to Meier and Crocker [4], "Direction is important. You want to have a good mentor that will give you a sense of direction rather than having you aimlessly reaching." To the Gen Y, if there is no sense of purpose or benefits from the efforts rendered, then it is all a waste of time. Therefore, as to keep the Gen Y motivated, it is very critical that employers must recognise how their efforts could add value to the organisation by providing clear direction and good leadership.

As indicated by Yeaton [34], Gen Y places a strong opinion on social responsibility. They are attracted to jobs with social significance, i.e., strong values, social ethics, distinctive brands, and non-hierarchical environments [13]. In the recent study by Ng et al. [6], 69 % of the 400 respondents expressed a genuine interest in the environment but admitted to a lack of personal involvement in green-related activities. Thus, organisations have to ensure that their corporate social responsibility policy is up to date. It should reflect the values and ethics of the company. Hence, good superiors that support and understand, regular feedback or more "face time," clear direction and translating into the big picture, and commitment to corporate social responsibility can be classified as some of the aspects under professional expectations of Gen Y. And these elements are believed to be contributing towards the relationship between Gen Y's professional expectations and job satisfaction.

17.5   Implications

This paper adds to the body of knowledge on Gen Y employees, a generational cohort that is not well understood by employers and yet perhaps is very critical due to its different expectations compared to the earlier generational cohort and the influence they bring about to the overall workforce. New measurement scales of work styles, professional expectations, and career concerns are to be developed as the framework of job satisfaction model for the Gen Y. The novelty of this research is that it does not take into account the element of salary or pay as the main factors to job satisfaction. Although to many, salary is perceived as the main contributor to an employee's satisfaction at workplace. As stated by the Herzberg Two Factor model of motivation, salary is a hygiene factor which does not boost job satisfaction level but only prevent from further dissatisfaction if it were to be increased. Thus, this concept is applied in the development of the conceptual framework. In addition to this, findings from the survey conducted by Robert Half International and Yahoo! Hotjobs in 2008 were the basis for the decision to include the respective constructs. From the survey, work styles, professional expectations, and career concerns are among the top factors that motivate Gen Y and that could retain them in organizations and the proposed study takes on an applied approach towards this critical phenomenon facing organizations today.

Further to this study would be the proposition to investigate the correlation between work styles, professional expectations, and career concerns of Gen Y and job satisfaction, as well as distinguishing which factor contributes the most to their job satisfaction level. This conceptual paper examines the various literatures with regard to the Gen Y and job satisfaction. Many constructs were revealed as the influencing factors of job satisfaction for employees in general. However, for the purpose of this paper, in-depth review of past literature was made to further understand the elements that would lead to Gen Y more fulfilled at the workplace. Even though there were many studies conducted in the past on Gen Y's expectation at the workplace, none has specifically looked at the work style aspects, professional expectations, and career concerns in parallel. Thus, this paper proposes that these three constructs be investigated concurrently and alongside the construct of job satisfaction among Gen Y employees. This with hope would enlighten the human resource practitioners in their efforts to stimulate Gen Y in engaging and thus retaining them longer in the organization. Future research should empirically test the propositions introduced in this paper. The factors highlighted, need to be thoroughly examined to be better understood, and catered as recommendations for the Gen Y.

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Chapter 18
Antecedents in Developing a Risk Culture in Public Listed Companies (PLCs): Introduction to Enterprise Risk Management (ERM)

Khairunnisa' Yussof, Yon Bahiah Wan Aris, and Nur Aina Abd Jalil

Abstract The new paradigm shift in risk management is Enterprise Risk Management (ERM). This is considered as the best approach to risk management as it deals with issues on globalization, industry competition, and socialization. One of the fundamental components of ERM framework is risk culture. The implementation of ERM can fail when the organization has a weak risk culture. This study aims to develop a conceptual study and seeks to examine the antecedents that contribute in developing a risk culture such leadership, accountability, competencies and risk management (infrastructure) in Public Listed Companies (PLCs). The main instrument used is a structured questionnaire which will be distributed to Risk Managers of 262 Public listed companies. The data will analyse using Statistic Package Social System (SPSS).

Keywords Enterprise risk management • Public listed companies • Risk culture

18.1 Introduction

Enterprise Risk Management (ERM) is a new phenomenon and designed to integrated risks across the organization. It is admitted as the best practice in the risk management especially dealing with issues on globalization and in a competitive environment [1]. The economic crisis in 1997–1998 and 2007 has created a need for ERM in dealing with business risks. ERM is the key for the long-term survival although organizations can still be impacted since there will be other factors that cause crises from time to time [2]. ERM is an integrated risk management

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mechanism that can help the organization in their strategic management and in decision-making [3, 4, 5]. Moreover, it can help to create greater confidence among shareholders [6]. Organizations must ensure the practicality of their risk management practice in accordance to each component in the risk management process.

In Malaysia, there is a requirement by Bursa Malaysia Listing Requirement to put in place a sound risk management among Public Listed Companies (PLCs). Thus, the numbers that implement ERM is encouraging even though ERM in Malaysia still at infant stage. However, Ping [7] claims that the confidence among the investor in Malaysia is weak due to the accounting malpractice among PLCs.

One of the fundamental components in ERM framework is risk culture [8]. According to PricewaterhouseCoopers. [9], the loss in the organization can be minimized by establishing an appropriate risk culture. Therefore, the consideration for risk culture must take action seriously before implementation of risk management. It is because this will affect the operation and reputation among the organization [7, 10].

In brief, a study on risk culture is vital because it could lead people to do the right thing at the right time. Evidence claims that many employees are still lacking in knowledge on the importance of risk culture [9]. A risk culture is about the way people feel and their perceived attitude towards risk that will affect the management of organization [11]. Several attempts have been made to study the correlation between that economic and business performance of organizations with risk culture [12, 13]. In practitioner study by Ashby et al. [14] claims that, the major role in the financial crisis which crystallised in the late of 2000s was caused by weak risk culture within organizations. In order to secure this performance, O'Donnell and Richard [15] found that it is important for the organizations both the private and public sectors to understand and manage their risk culture.

18.2   Problem Statement

ERM can fail when the organizations do not manage its risk culture [16]. Research has consistently shown that improper risk culture is a barrier to the success of ERM implementation [17]. Despite this acknowledgement, many organizations still have considerable restraint towards the risk culture in their organizations [11, 18]. In the practitioner study by Accenture [19], they find that many organizations unable to create awareness of target risk culture of 91 % and only achieve 70 %. This is because a lack of knowledge on risk management and ERM among leadership is the main barrier to ERM [7]. Since the study on risk culture and ERM is still very limited as cited by Althonayan et al. [11], Kimbrough et al. [20], and Manab et al. [21], thus, it is important to examine the antecedents that contributing in developing a risk culture that would significantly affect the successful of ERM implementation in organizations.

18.3   Objectives of Study

The objective of this study is to identify the importance of risk culture in an organization. As such, this study attempts also to test antecedents such as leadership, accountability, competencies of employees, and risk management (infrastructure) in developing a risk culture in organizations.

18.4   Literature Review and Framework

Risk culture is the soft part of an organization and relates to behaviour. Behaviour, in turn, reflects the employees within the organization [14]. Behaviour will influence both the effectiveness of risk management application and decision-making procedures [14, 22].

Pfeffer [23] claims that culture is usually long-term and difficult to change. It represents the shared sense of the way employees do things within a certain environment. It is a critical factor in guiding day-to-day behaviour or when shaping a future course of action. According to Althonayan et al. [11], culture plays significantly in the success of new policy or system developed by the organization (Table 18.1). The successful implementation of ERM in organizations depends on a risk culture, [20, 21, 24]. Moreover, a risk culture enables organization to align their experiences with strategic objectives and consistent in decision-making [25].

Table 18.1 shows case studies on ERM, highlighting on the awareness, challenges and actions taken by organizations. Awareness on risk culture is important to keep the organizations' operation and decision-making on the right track [26]. In order to ensure the success of ERM implementation, appropriate antecedents of risk

Table 18.1 Case studies on ERM

Organization	Challenges	Action	Result
AZ electronic material	Difficulty of cultural change through new risk approach disclose in reporting and process	Explain the priority of ERM and risk culture through the organization	Better understanding of organization objective and business continuity, customer need, improved quality control
	Challenging introduction of risk culture within business units	Effort to embed risk culture throughout the enterprise globally	Strong of competitive market image
Global investment	Lack of cooperation and cohesion	Management aims to ensure comprehensive integration of group though creating strong and consistent culture	The existing risk culture needs to be re-examined due the gaps identified from internal survey
	Disconnection communication in daily operation between risk and business group		

Source: [11]

culture must be identified. The model developed by Rossiter [27] states that a risk culture needs four keys antecedents. The antecedents consist of leadership, accountability, competence and risk management infrastructure. In addition to this, this model can enhance a better understanding on risks and increase the level of risk awareness [11, 28, 29].

A. Leadership

The first antecedent of risk culture is leadership. Lorsch et al. [30] defines a leader as an individual who influenced others to follow him or her. Brooks [29] claims that leadership could create a risk culture within the organization. According to Farrell et al. [31], the risk management function alone is unable to change risk culture; as such, leadership must represent the real driver of change. The values possess by leaders include integrity and strategic in communication. These values are required to successfully implement ERM [21]. According to Rochette [25] and Cooper et al. [29], the commitment among leadership also can create greater confidence among shareholders and also the success of ERM implementation. Leaders who lack integrity should be responsible for the failure in the organizations [32]. Therefore, this can be propositioned that:

P₁ There is a positive relationship between leadership and develops a risk culture.

B. Accountability

Accountability is the foundation antecedent that should be possessed by employees or management, and it must exist at all levels in the organizations [16, 29, 33]. A strong of sense of accountability must also be developed across the organizations [18]. Accountability can be build up through employees' involvement. Employees' involvement is related to organizational effectiveness [34]. Employees' involvement can create motivation at work and produce positive outcomes.

Accountability also can be created by giving rewards. According to O'Donnell and Richard [15], promotion, recognition programmes, and monetary rewards are some examples of rewards that can carried out by an organization. Lindsay [32] stress that employees need to know that the benefits derived from the risk they take will be directly connected to the goals that are most important to the organization. The employees' involvement and rewards will result in a well-managed organization and accountability in the implementation ERM [6, 35]. Therefore, the above literature will be developed a proposition for this study:

P₂ There is a positive relationship between accountability and develops a risk culture.

C. Competencies of Employees

Competencies are referred to the trainings and the ability to communicate among the employees. Training contributes to a strong risk culture in organizations [36]. According to Hyrsky and Tuunanen [37], trainings can enhance the understanding among employee on their working environment and thus able to make a sound decision.

Communication among employees also will develop a strong risk culture. A risk culture is hard to develop when organization restrained open communication which in turn will discourage sharing of ideas and asking questions [26]. Based on the above discussion, the following proposition is developed:

P_3 There is a positive relationship between competencies and develops a risk culture.

D. Risk Management (Infrastructure)

Risk management (infrastructure) is determining how well the organization identifies and measures risk and establishes process and control to mitigate risks [27]. In a study by Manab et al. [21], it was found that risk management infrastructure is a significant factor to the successful implementation of ERM. Process identification and assessment of risks will reduce the failure of the projects or new product launching.

In addition, the Chief Risk Officer (CRO) is the individual needed to assist the organization to understand and develop the risk management policies, of which it should be aligned with the organization's policy [3, 38]. In a study by Stulz [39], failures of risk management practices in organizations were caused by the reluctance of the organization in understanding risk management completely. In addition, the obstacles in improving the risk management start when the organization acknowledges risk management as a compliance-related activity and not as an approach to help improving their performance [22]. Therefore, it can be propositioned that:

P_4 There is a positive relationship between risk management (infrastructure) and develops a risk culture.

Based on the literature review, this research concentrates on the conceptual framework in developing a risk culture in PLCs. This framework emphasizes the variables, i.e. leadership, accountability, competence and risk management (infrastructure) [20, 21, 27, 29]. These independent variables are related in developing a risk culture within organization. The detailed proposed framework is given below (Fig. 18.1):

Fig. 18.1 Proposed
framework (Source: [20, 21,
27, 29])
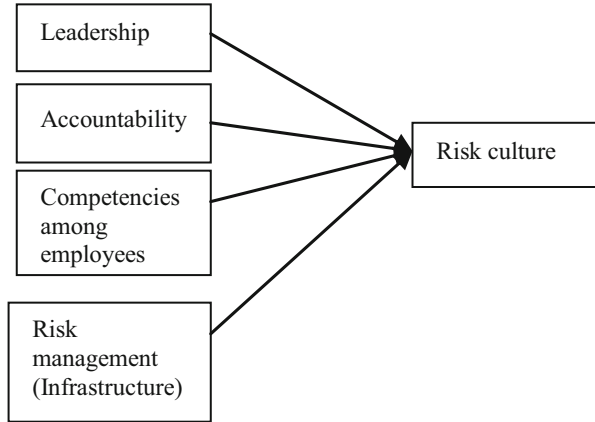
18.5   Research Methodology

Quantitative approach is adopted in order to provide a descriptive of empirical
evidence. PLCs from 13 sectors will be selected as the target population. Study
conducted by Miccolis et al. [40] state that larger companies mostly adopt ERM in
their organizations.

The list of companies was obtained from list of companies from Bursa Malaysia
website 2013. A sample size is 260 was selected from a total 829 PLCs. The main
instrument in this study is structured questionnaire.

Statistical Package for Social Science version 20 (SPSS) will be employed for
data analysis. Data analysis methods were used for this research are reliability
analysis, descriptive statistical analysis, frequencies analysis, exploratory factor
analysis, and multiple regression analysis to test the hypothesis.

18.6   Conclusion

In conclusion, a risk culture must be present for the organization to implement ERM
effectively. Antecedents that contribute in developing a risk culture are identified to
be studied as [27]), and they are leadership, accountability, competencies, and risk
management (infrastructure). By strengthening these antecedents, the organizations
can makes strategic decision for their growth and sustainability in implementing
any risk management or ERM. On the other hand, it is clear that a poor risk culture
in certain organizations is vulnerable to financial crisis, and it continues to cause
high-profile problems especially among the financial sector [41].

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Chapter 19
Factors Contributing to Paddy Farmers' Intention to Participate in Agriculture Takaful

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Abstract Agriculture is an economic sector that is exposed to an array of risks such as climate change, pests attack, disease, and others. In its attempt to sustain and protect this sector, the Malaysian government in its 2013 budget has initiated a takaful plan to help farmers reduce losses resulting from natural disasters. Hence, this research aims to investigate the relationship between attitude, subjective norm, perceived behavioral control, perceived risk, and intention to participate in agriculture takaful. Apart from this, the research also aims to explore the risks faced by farmers as well as to analyze the farmers' need to participate in this risk management plan. Three hundred thirty six respondents comprising paddy farmers in Kedah participated in this survey. Quota sampling technique is used to measure the attitude, subjective norm, perceived behavioral control, perceived risk, and intention to participate in agriculture takaful. Pearson correlation was used to measure the relationship between the variables. The results indicate that risks most severe and most frequently experienced by farmers are those caused by pests attack. Furthermore, the findings also explained that perceived risk and attitude are the significant factors that influence paddy farmers' intention to participate in agriculture takaful. Findings from the study would be beneficial to takaful operators, relevant ministries, and policy makers to materialize the implementation of an agriculture takaful plan for this sector.

Keywords Agriculture takaful • Risk • Intention to participate • Climate change

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19.1   Introduction

The agriculture sector is seen as an important economic arm of any country as it is able to generate income and thus able to continue the food supply. Despite being an important engine of growth, this sector is exposed to major risks. Natural disasters are seen as one of the hindering factors that will also affect investments in the agricultural sector. The existence of high risk is likely to undermine the development potential of the sector in generating the economy. Hence, if not much investment is channeled into this sector, it will reduce the amount of production, thus leading to food shortages [1]. Agriculture sector contribution in the rural transformation and the national economy is seen along with its structural characteristics which require substantial government and financial sector interventions to ensure sustainability of this important sector.

   Paddy is a major crop and staple food which recently has become one of the focuses of the transformation policy of the government. Despite the many government incentives and benefits given to this sector, the paddy farmers are still among the poorest in the country. Climatic change, natural disasters, diseases, and attacks from pests and insects are also seen as threats to paddy plantation. The recent budget of 2013 intends to introduce a takaful scheme for paddy farmers with an allocation of RM 50 million set aside for this purpose and is expected to benefit approximately 172,000 paddy farmers. The insurance scheme is introduced to minimize the losses faced by the farmers. For example, worm attacks on a large scale in Jitra, Kedah, in early 2012, have resulted in damage to the rice to a large number of paddy field operators in the area. This clearly shows that paddy, although highly important, is a crop exposed to high-risk factors.

A. Background of Study

Agriculture has been identified as a potential economic sector for generating the nation's income and is the third most important sector for its economic growth. In terms of land usage, about 2 % from the whole agricultural lands are planted with crops such as palm oil, cocoa, rubber, coconut, vegetables, and fruits. Through the Malaysia Ninth Plan, the government has put greater emphasis and observation to the agricultural sector. New agricultural activities that involve larger scales have been monitored with emphasis on the usage of modern technology applications such as ICT by farmers. This is to ensure that only high-quality products are produced. In addition to this, services related to agriculture have been revised and organized. Agricultural sector which contributes to about 10 % of GDP has almost a third of the population depending on this sector as their source of income for living, with an average of 14 % of them working at farms and plantations. This sector is dominated, however, by poor or low-income workers. Climatic changes, weather factors, the fluctuating of commodity prices, changes in consumers' demand, pests,

and harmful diseases will not only affect production quality but to the socioeconomics' specifically to those working in this sector. For example, floods in the state of Johor in 2006–2007 costed the Malaysian government RM 2.4 billion. Almost 7,000 farmers were affected, and the agricultural sector estimated a loss of about RM 84 million.

Generally, Malaysia's experience with risk is still manageable as compared to some other countries [2]. Nevertheless, changes in climate have been the government's main concern for a long time. Risk mitigation measures have been confined to outdated traditional methods and may have somewhat be effective in small losses but, needless to say, may not be applicable in cases where the impact is huge [3].

B. Research Objectives

The study aims the following:

– To identify risks faced by farmers, in terms of frequency and severity
– To investigate factors influencing the intention to participate in agriculture takaful

19.2 Literature Review

A. Demand in Agriculture Insurance

Agricultural production is naturally a risky venture. Farmers face a variety of risks such as adverse climate conditions, instability in input and output prices, livestock disease occurrence, and locust and pest outbreaks. The impact of these risks is more pronounced to most smallholder farmers in developing communities [4]. Since the agriculture sector is exposed to various types of risks, most countries have introduced insurance as a mechanism to deal with these uncertainties. Studies have been conducted to examine the factors affecting producers' demand for crop insurance. The earlier model of demand for crop insurance attempted to analyze producers' decisions on whether to take part in crop insurance and then to select among alternate insurance products [5]. In a survey conducted on farmers in Illinois, Iowa, and Indiana, their findings discovered that factors such as farm size, age, level of debt, and yield risk are positively linked with the participation in the insurance program and with the demand for revenue insurance.

Boyt et al. [6], on the other hand, in their study, identified that the amount of risk taken on by farmers shows a positive relationship with the attitude to purchase crop insurance. The positive coefficient shows that as farmers take on more risk, they are more likely to purchase crop insurance. These results also imply that farmers who take on less risk would purchase less crop insurance, reflecting their reduced needs

for crop insurance. The risk variable measures how much risks the farmers believe they are taking on in their general farming operations. In addition to this, previous risk record of the farmers can also influence the purchase of crop insurance. Thus, identifying the type of risk and its impact on each crop is important and can help improve crop yield and quality [7].

B. Theory of Planned Behavior

To study the paddy farmers' intention to participate in agriculture takaful, the theory of planned behavior is used. There are three components in this theory of planned behavior that explain further the intention to behave, i.e., attitudes, subjective norm, and perceived behavioral control. Basically, the theory of planned behavior [8] is an extension from the theory of reasoned action [9].

1. *Attitude*

According to the theory of reasoned action, attitudes are a function of beliefs. In other words, when a person believes that performing a given behavior will lead to mostly positive outcomes, he or she will be more inclined to perform the behavior. Ajzen and Fishbeim [9] stated that attitude toward behavior is determined by a person's evaluation of those outcomes as either negative or positive. An individual is more probable to assume a certain behavior if she or he has a positive attitude toward undertaking the behavior [10]. This point was supported by Blackwell et al. [3] indicating that the performance of a particular behavior is connected to the individuals' attitude in the object.

2. *Subjective Norm*

The second determinant of intention is subjective norm. Subjective norms can be explained as social pressures that a person perceives directly to the individual in engaging in a specific behavior. The more social pressure a person perceives to be connected to a behavior, the more possible it is that the individual will perform the behavior. Subjective norms are frequently evaluated by assessing the social pressure a person perceives from specific individual such as parents, friends, relatives, or influential people [10].

In addition, the subjective norm refers to how the social pressures influence the person's perception to perform the behavior [11]. In summary, subjective norms refer to the influence of others toward the behavior of an individual. Furthermore, subjective norm is a function of beliefs in the theory of planned behavior. If a person believes that the people around them will influence them to perform the behavior, then the subjective norm should influence the intention of the person to perform the behavior.

3. *Perceived Behavioral Control*

The final major predictor in theory of planned behavior is perceived behavioral control. Perceived behavioral control is another determinant added in the theory of planned behavior. Perceived behavioral control refers to the degree of control that an individual perceives over performing the behavior [12].

Ajzen [13] reiterated that perceived behavioral control is the degree to which a person feels able to connect in the behavior. It has been divided in two aspects, which is how much a person has control over behavior and how confident a person feels about being able to perform or not perform the behavior. According to Ajzen [14], perceived behavioral control can report for considerable variance in behavioral intention and actions. Furthermore, factors such as time, money, and skills can help to increase and control the people's perception and increase the behavioral intention [15].

4. *Perceived risk*

Feelings of anxiety from traumatic events experienced by farmers have encouraged each individual to protect themselves in various ways [16]. The act of purchasing property insurance is one of the efforts that can be carried out by each individual to protect their properties from harm. Subsequently, this increase and reduction efforts based on the results of protection can also come in the form of increased demand for life insurance. Most individuals reevaluate their decision to take a policy insurance after experiencing the sight of the damage and destruction caused by several events of disaster. Accordingly, individuals will feel more responsible and being more proactive in protecting themselves from the risk of death due to various factors [17].

Ganderton et al. [18] were of opinion that losses in natural disasters can often be so cruel and large that they dominate people's assessment of the risk they face. In order to secure property, health, and financial assets of individuals, such cognitive adjustments could be responsible for changes in the demand for products. A study by Ghadirian and Ahmadi [19] in Golestan, one of the provinces in Iran, found that factors such as age, farm size, product diversification, the level of insurance for other crops, and sustained record of previous risk are having negative relationships with the elasticity and tendency to purchase soy insurance. Besides that, the amount of credit received by farmers is also seen to have positive effects and is able to influence farmers' decision to buy insurance. Kang et al. [20] expanded the analysis on perceived risk even further and came out with findings on the amount of risk taken on by farmer which shows a positive association with their attitude to purchase crop insurance. The positive coefficient reveals that farmers who take on more risks will be more probable to purchase crop insurance. These findings also imply that farmers who take on lesser risk would purchase lesser crop insurance, which reflects their reduced needs for crop insurance. This implies that risk variable measures how much risk the farmer believes they are taking on in their general farming operations.

5. *Intention to purchase*

Intention can be defined as a person's position on a subjective probability dimension linking with a relation between himself and several actions [9]. Another definition by Armitage and Conner [16], on the other hand, defines intention as the motivation for individuals to engage in a certain behavior. Based on the theory of planned behavior (TPB) model, intention is the immediate determinant of an individual behavior either to perform or not to perform it [17]. According to Ajzen and Fishbeim [9], behavioral intention is defined as the individual's subjective likelihood that he or she will connect in that behavior.

The theory of reasoned action (TRA) explains that the intention of a person is the determining basis of two functions which are personal in nature and the other reflecting social influence [12]. The personal aspect is the individual's positive or negative evaluation of performing the behavior. This factor is termed attitude toward the behavior [9]. These two theories have been used widely to predict a person's behavioral intention as a combination of three basic variables: attitudes toward the behavior, subjective norm, and perceived behavioral control [21].

19.3 Research Methodology

This is a descriptive research employing the survey method through the distribution of questionnaires. Questionnaires were personally administered to ensure a high response rate. Using quota sampling, a total of 336 respondents, comprising paddy farmers from paddy growing areas in Kedah, participated in this survey. Besides descriptive statistics, Pearson correlation was also employed to establish the relationship between the variable. Cronbach's alpha was also tested for reliability and validity, whereby the result for alpha for the overall questions is 0.967 indicating that it is acceptable.

19.4 Data Analysis

A. Demographic Data

Demographic information obtained from the respondents included gender, age, education level, type of ownership, monthly income, the period involves in paddy plantation, and size of crop area. This information was deemed necessary for this study in order to determine the demographic profile of farmers that affected the farmers' intention to participate in agriculture takaful (Table 19.1).

About 336 questionnaires are distributed randomly to farmers. Out of 336 respondents, 292 (86.9 %) are male. The majority of respondents are more than 50 years old. 61.9 % respondents hold secondary school qualifications and beyond. Almost half of the respondents (47.3 %) own the paddy field. Most of the

Table 19.1 Demographic profile (N = 336)

	Categories	Frequency	Percentage (%)
Gender	Male	292	86.9
	Female	44	13.1
Age	21–29	24	7.1
	30–39	29	8.6
	40–49	123	36.6
	50 and above	160	47.6
Education level	Do not attend school	23	6.8
	Primary school	105	31.2
	Secondary school	175	52.1
	Certificate	24	7.1
	Diploma/degree/others	9	2.7
Number of dependents	1–3	116	34.5
	4–6	168	50
	7–10	47	14
	More than 10	5	1.5
Type of ownership	Rent	140	41.7
	Own	159	47.3
	Lease	22	6.5
	Others	15	4.5
Monthly income	<RM 1,000	147	43.8
	RM 1,001–RM 2,000	104	31.0
	RM 2,001–RM 3,000	53	15.8
	RM 3,001	32	9.5
Duration work on paddy fields	>1 year	116	6.8
	1–5 year	44	13.1
	6–10 year	54	16.1
	>10 year	215	64.0
Size of acreage	1–3 ha	158	47.0
	4–6 ha	91	27.1
	7–9 ha	48	14.3
	10 ha and above	39	11.6

respondents earn monthly income of RM 1,000 and below per month. The majority of respondents are involved in paddy plantation for more than 10 years. About 158 (47 %) paddy farmers have the size of acreage between 1 and 3 ha.

B. Frequency and Severity

In terms of severity of losses, the respondents ranked pest attack as the highest (70 %), followed by flood (17.8 %) and storm (8.93 %), and the lowest is drought

Table 19.2 Frequency and severity

Risks	Frequency	Percentage (%)	Rank of risk
Most severe			
Flood	60	17.8	2
Drought	11	3.27	4
Pests attack	235	70.0	1
Storm	30	8.93	3
Most frequent			
Flood	75	22.32	2
Drought	20	5.95	4
Pests attack	198	58.93	1
Storm	43	12.78	3

(3.27 %). In terms of risks, most frequently faced by farmers, 198 (58.93 %) farmers ranked pests attack as the risk they frequently faced. Furthermore, 75 (22.32 %) farmers ranked flood as the second risk they frequently faced, 43 (12.78 %) farmers ranked storm, and 20 (5.95 %) farmers ranked drought (Table 19.2).

C. Descriptive Analysis

Based on Table 19.3, respondents were asked to indicate their perceptions and agreement toward the statement in the questionnaires by using the 6-point Likert scale answers. The scales were ranged between 1 = strongly disagree and 6 = strongly agree. An even numbered scale would not have a midpoint and thus forced respondents to make a choice [14].

The overall mean for intention to participate in agriculture takaful was 4.49 (sd = 0.95), perceived risk was 4.60 (sd = 0.89), attitude was 4.28 (sd = 1.09), perceived behavioral control was 4.33 (sd = 1.13), and subjective norm was 4.24 (sd = 0.95). Based on the results, it can be summarized that most of the respondents which are paddy farmers agree to participate in this agriculture takaful. The most of the respondents of the answers fall at point of 4, which means they agree to each statement.

D. Regression Analysis of Coefficient

Regression analysis of coefficient test as exhibited in Table 19.4 is used to test the coefficient between independent variables and dependent variable. The results from the table show that beta of perceived risk is 0.288, followed by attitude (0.164), perceived behavioral control (0.235), and subjective norm (−0.54). Based on the result, perceived risk has the highest impact on paddy farmers' intention to participate in agriculture takaful.

Table 19.3 Mean and standard deviation

Variable	Mean	Std. deviation
Subjective norm	4.24	0.95
Perceived risk	4.60	0.89
Perceived behavioral control	4.33	1.13
Attitude	4.28	1.09
Intention to participate	4.49	0.96

Table 19.4 Coefficients

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.
	Beta	Std. error	Beta		
1 (Constant)	1.042	0.334		3.124	0.002
Subjective norm	−0.055	0.118	−0.054	−0.464	0.643
Perceived risk	0.369	0.108	0.288	2.881	0.000
Perceived behavioral control	0.312	0.088	0.235	4.190	0.346
Attitude	0.460	0.256	0.164	1.795	0.000

p value < 0.05
[a]Dependent variable: intention to participate

In addition to this, only two variables which are perceived risk ($p = 0.000$) and attitude ($p = 0.000$) are significant predictors on the intention to participate in agriculture takaful. The other variables which are subjective norm ($p = 0.643$) and perceived behavioral control ($p = 0.346$) are not predictors of intention to participate in agriculture takaful.

19.5 Discussion

In this study, perceived risk has been identified as the factor most influence on paddy farmers' intention to participate in agriculture takaful, with a beta value of 0.288 as the highest among all the variable. In general, the awareness of risk is also important in risk management because it increases the level of education among the individuals. Makaudze [4] also supported this finding and added that perceived risk is also a significant factor that contributes toward farmers' intention to purchase crop insurance. This also explains the fact that perception on past experiences leads farmers to take part in crop insurance. Boyt et al. [6] also claimed in their studies that risk perception shows a positive and significant relationship with the attitude to purchase crop insurance. The positive coefficient demonstrates that the more risks they faced in their past time, the more probable they are to purchase crop insurance [15].

The results on attitude variable are consistent with the research conducted by Kang et al. [20] who discussed that attitude has a significant impact on farmers toward private crop insurance. The study also explained that the farmers' satisfaction toward private crop insurance which influenced them directly leads to their attitude to participate in the scheme and further built a positive attitude.

19.6   Conclusion

The findings of this study showed that the two dimensions which are attitude and perceived risk can be used to predict the paddy farmers' intention to participate in agriculture takaful. On the risks faced by the farmers, the findings identified that risks frequently experienced by farmers are those related to pest attacks. In terms of severity and economic loss, the risks are also pests attack. Several implications can be derived from this study. Firstly, it can assist takaful operators to strategize their marketing positioning to develop new innovative takaful schemes for this new market. Bearing in mind that takaful is an intangible product and the farmers were not much exposed to this kind of risk management mechanism, training must be aggressively conducted on takaful representatives when approaching this group of potential customers. Promotions must not only be aggressive but consistent.

The relevant government body such as the Ministry of Agriculture and Agro-based as well as the Ministry of Finance could also promote and educate this segment of the society to further understand the benefits and mechanisms of takaful. Takaful must be viewed as initiatives to minimize losses against uncertainties of risks and not as an outlet to make gains. The takaful plans must be simple and easy to understand with only basic takaful plans.

The benefits of takaful to the agriculture sector are obvious. Nevertheless, without large numbers of homogeneous exposures, in this case the farmers, the plan may not succeed. The law of large numbers which applies to any insurance scheme is only feasible if there is a large pool of policyholders. Thus, the government and takaful operators must continue to promote this initiative so as to get the support from the farmers.

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Chapter 20
Employee Prosocial Motivation and Interpersonal Citizenship Behavior: The Supervisor Rating of Leader-Member Exchange Quality as a Mediator

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Abstract While leaders encourage employees to engage in interpersonal citizenship behavior, motivated employees may perform the behavior due to the existence of leader-member exchange relationship. Performing interpersonal citizenship behavior for the benefit of others is critically needed, yet it is still inadequately studied. Thus, the objective of this paper is to examine the mediation effect of supervisor rating of leader-member exchange on the relationship between subordinates' prosocial motivation and interpersonal citizenship behavior. Rasch model was used to investigate the measurement analysis, and Hayes' mediation analysis of SPSS was administered for further analysis on 210 subordinate-supervisor dyads at local public universities. The findings reveal that prosocial motivation variable influences leader-member exchange quality and leader-member exchange quality is related to interpersonal citizenship behavior. Thus, it is proven that leader-member exchange relationship quality as a mediator. A discussion on estimation of indirect and direct effects in statistical mediation analysis is presented.

Keywords Interpersonal citizenship behavior • Prosocial motivation • LMX supervisor rating • Indirect effect mediation • Rasch model • Hayes' mediation analysis

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20.1   Introduction

Interpersonal citizenship behavior (ICB) is considered as one crucial unique element of organizational citizenship behavior (OCB) [1]. Bowler and Brass suggest that ICB is a flexible job behavior, which is not under employee job descriptions, that helps coworkers and/or supervisors directly or indirectly, which is able to promote individual, group, or organizational productivity. Volunteering for extra job assignments and being joyful and easily befriended to others are examples for engaging ICB [1].

Some examples of this behavior are volunteering for extra projects or being cheerful and friendly toward others. Because of its uniqueness, the ICB performer needs to have a relationship with the ICB receiver first, which then the receiver will get the benefits from the performer under the performance of ICB.

When an employee wants to be helpful, he or she is said to possess a prosocial motivation (PSM). Employees perform citizenship behavior because they are motivated by prosocial values which sincerely affected other employees' welfare. Both organization and individuals will get the good benefits out of these values in terms of organizational effectiveness and job performance relatively [2, 3]. This motivation of helping offers positive consequences such as sustainable, high-quality, effective relationship between individual positive self-development and other employees' productivity at work [4]. PSM is mostly related with citizenship behavior which is directed toward the individuals [5]. Motivation at work which derives from work tasks is perceived as more extrinsic (i.e., impression management; controlling) than intrinsic (i.e., PSM; autonomous). As such, it is important to understand that prosocial motivated employees may extend their help due to their relationship with their supervisors.

Engaging ICB and performing PSM may be personally interacted; thus, leader-member exchange (LMX) quality may have some significant roles in maneuvering both ICB and PSM which are performed by employees. LMX theory is not the same as any other leadership theories. LMX, which was termed as vertical dyad linkage, overtly focuses on the relationship of two individuals, and it is a special relationship which leaders have with each follower [6]. A study which was based on LMX theory of employee performance demonstrated that employee citizenship behavior did vary with the level of exchange found in the supervisor-employee relationship [7].

20.2   Problem Statement

It is agreed by a group of researchers in a study that administrative officers' roles and functions in public universities are directly tied with university administration and management. In running the university administration, compared to the academic staff, university administrative officers (e.g., assistant registrars) are proven

to have more contacts with their direct supervisors who are among the heads of university departments [8]. University administrative officers hold good communication network and involve more with the university top management in developing and strategizing the university and faculty policy decision-making and directions. However, the administrative officers are keener to work independently rather than working in groups. This indicates the lack of ICB among them. Administrative officers also are found to experience less satisfaction with the university leadership which can cause institutional paralysis [8].

In organization, the existence of high quality of LMX can result the performance of ICB. In many cases, job outcomes are not directly related to personality variables [9]. It is proven that the ability of individuals with certain attributes of personality such as PSM may form high (or low)-quality supervisor-subordinate relationship that, as a result, leads to desired employee outcomes (e.g., ICB) [9]. Therefore, it is predicted that local university administrative officers who perform ICB are driven by LMX, and their LMX are motivated by PSM. Hence, there is an existence of LMX quality as a mediation of the relationship between PSM-ICB.

20.3   Literature Review

This section discusses on interpersonal citizenship behavior (ICB), employee prosocial motivation (PSM), and supervisor rating of leader-member exchange (LMX) quality as a mediator. Three hypotheses are being examined accordingly.

A. ICB as a Unique Element of OCB

Organizational citizenship behavior (OCB) is defined as employee performance that goes beyond what is expected of him or her by his or her own supervisor or organization [10]. Citizenship behavior, which consists of different forms of behavior, has unique antecedents and possesses different characteristics. The employee chooses which citizenship behaviors selectively instead of engaging all equally [11]. The employee targets both the individual and the beneficiary of the behavior when selecting to perform OCB elements [12]. Thus, by selecting elements of citizenship behavior to perform and targeting individuals as the beneficiary of the behavior, the employee is considered to perform ICB [1]. OCB is typically the outcome of job satisfaction, employee commitment, and procedural justice; but there is no relationship with the performance or receipt of ICB [1]. For instance, employees who do not perform OCB toward the organization may likely are not satisfied with their organization. However, the same individuals are willing to help their friends who work in the same organization. In short, these individuals are performing ICB, not OCB.

B. Interpersonal Citizenship Behavior

Interpersonal citizenship behavior (ICB) is an important element of OCB. At individual level, the recipient of ICB is proven to achieve superior job performance and better employment outcomes which indicates that ICB has the highest value to the performer. In addition, ICB improves group functioning through cooperation and coordination development [13].

Compared to any other OCB elements, ICB has target of the behavior or aim for primary beneficiary [14]. Directed attention of the orientation of citizenship behavior toward coworkers or supervisors may emerge due to the role of interpersonal responsiveness in management practices such as empowerment, self-directed group work, or decentralized strategic development. ICB may also serve as valuable means of coordinating job activities among employees [15]. Other than that, ICB encourages group cohesiveness, decreases voluntary turnover, and makes happier working environment, therefore, enhancing productivity of the organization.

C. Leader-Member Exchange

Basically, leader-member exchange occurs when a supervisor demonstrates managerial actions which positively regard an employee, and due to that the employee is willingly to reciprocate through behaviors that are likely valued by the supervisor [16]. This is congruent with social exchange theory, where individuals who are engaged in high-quality relationships will behave in such a way that their exchange partner will also get the benefits [17]. Contribution, loyalty, and affect are a three-factor model which was proposed by Dienesch and Liden [18]. Hence, they strongly argued that the theoretical model of LMX should be multidimensional.

A person's personal attributes do not solely drive an employee behavior. Instead, the characteristics of relationship, such as LMX, that promote in determining the employee behavior. Therefore, ICB may be the result of "opportunity structures" which is created by organizational social and workflow systems [19]. The emphasis on dyadic relationships is an important and unique feature of LMX theory. Nevertheless, in supervisor-subordinate relationships, it has proven that supervisors do not behave consistently toward all subordinates [20]. Instead, supervisors engage different quality relationships with their subordinates. In supervisor-subordinate relationships, high quality of LMX dyads exhibits a high level of exchange between the supervisor and subordinate. This characterizes by mutual liking, trust, respect, and reciprocal influence [18]. As a result, subordinates are often given more information by the supervisor and reported better latitude of job. On the other hand, lower quality of LMX relationships known as traditional "supervisor" relationships is based on hierarchical differentiation and exercises more formal rules of employment contract [21].

D. Prosocial Motivation

Prosocial motivation (PSM) is defined as the desire to expend help effort to benefit others [22–25]. PSM which is different from altruism and independent of self-interested motivations is also the desire to safeguard, support, and care about the welfare and well-being of others [2, 26]. Grant and Berg [26] suggested that PSM is more toward intrinsic motivation than extrinsic motivation. Employees who are prosocial motivated hold norms and values that are considered as anchors which link between motives and interpersonal citizenship behaviors [27]. Furthermore, employees can also be motivated to help others because they feel that they need to help [28], and the motivation to help arises from the value placed on the welfare of others [29]. Therefore, an appreciation from the help beneficiaries is not really significance among the help givers [30]. Employees who are highly prosocial motivated exhibit a high level of performance, persistence, productivity, creativity, task significance, social worth, perceived positive impact on others, affective commitment to beneficiaries, and self-efficacy [26, 31–33].

1. Prosocial Motivation and Leader-Member Exchange

It is important that supervisors have a positive perception of trust upon their subordinates in order to strengthen the relationship between employees' motivation and performance [34]. To obtain proactive behaviors and strong PSM among subordinates would contribute to better evaluations by supervisors [35]. A study was done by Cheng et al. [36] on the moderating effect of supervisor-attributed motives on voice behavior (e.g., make an innovative suggestion) and LMX relationship. Clearly, voice behavior may more significantly affect LMX because supervisors categorize voice behavior as being more prosocial oriented. Hence, it is predicted that there is a significant relationship between PSM and LMX among administrative officers at public universities in Malaysia.

H_1: There is a significant relationship between PSM and LMX.

2. Leader-Member Exchange and Interpersonal Citizenship Behavior

High quality of relationships can result in an ICB outcome. This promotes mutual concern and sensitivity to help others increase. Podsakoff et al. [37], in a meta-analysis research, identified that LMX was positively related to altruism and other citizenship behaviors as a whole. Interestingly, individual-targeted behavior was predicted more strongly by LMX, instead of organizational-targeted behavior ($p = 0.38$ vs $p = 0.31$), and found statistically significant difference [6].

In high-quality LMX relationships, subordinates reciprocate their supervisors by performing citizenship behavior that benefits the supervisors and other colleagues in the organization. With high quality of LMX, subordinates may likely to expand

their roles beyond what is expected by their supervisors and to perform higher degree of citizenship behaviors [17]. Therefore, it is predicted that there is a significant relationship between LMX and ICB among administrative officers at public universities in Malaysia.

H_2: There is a significant relationship between LMX and ICB.

3. Leader-Member Exchange Relationship Quality as Mediator

A recent study found that employees who do not possess self-oriented motivation has a significant relationship with supervisor-subordinate disagreement which results to positive outcomes [38]. Thus, it is predicted that LMX mediates the relationship between PSM and LMX among administrative officers at public universities in Malaysia.

H_3: LMX quality mediates the relationship between PSM and ICB.

20.4   Methods

A. *Participants and Procedures*

This study is cross-sectioned correlational research which data are gathered over a period of 6 months. 210 paired data were analyzed. The data were analyzed by using the Rasch Model Measurement (WINSTEPS 3.72.3) and Statistical Package in Social Sciences Software (SPSS) version 20.

The population for this study is the total number of public university administrative officers (AOs; e.g., N41, N44, and N48) and professional and management group, from various departments and units at 20 public universities in Malaysia. The 20 public universities are listed in the Ministry of Education Malaysia (MOE) official portal at http://www.moe.gov.my/en/home [39]. The critical component of the model is ICB; hence, it is important that the sample includes employees who have opportunities to help their supervisors on a regular basis. The sampling strategy focused on the entire AOs in which it is assumed that employees and their supervisors have a tendency to interact with one another. This ensures that participants have opportunities to interact with supervisors at work, thereby providing opportunities for variance in ICB.

B. *Measures*

Interpersonal Citizenship Behavior. Seven items of interpersonal citizenship behavior were adopted from Williams and Anderson's [14]. Williams and

Anderson [14] labeled the dimension as organizational citizenship behavior toward individual as behavior that occurs without any external rewards. Settoon and Mossholder [12] later developed 14 5-point Likert-type scale items on ICB which 4 items were adopted from Williams and Anderson's [14]. Therefore, since the four items adopted from Williams and Anderson's [14] are similar and redundant, these items were dropped. Therefore, ten items of Settoon and Mossholder's [12] were remained; thus, there are 17 5-point Likert scale items that were used as the instrument in this study. All item reliabilities exceed 0.70. Immediate supervisors were the respondents of this dimension because they tended to work along with their subordinates, which increases the likelihood that the supervisors would observe a range of employee ICB over time [12].

Prosocial Motivation. PSM also was assessed with a 5-item scale adapted from the measure of PSM using an established 12-item measure developed by Grant [40], Grant and Sumanth [34], and Grant [30]. All items were adopted, and the item reliability is above than 0.90. This scale was responded by the subordinates.

Leader-Member Exchange. Leader-member exchange measure was adopted from a 7-item (LMX7) construct of Scandura and Graen [41], with Cronbach's alpha of above 0.84. Graen and Uhl-Bien [42] recommended the LMX7 scale as many studies (e.g., [43, 44]) had analyzed the Cronbach's alpha single measure range of 0.80–0.90. Coefficient alpha for LMX7 analyzed by Berneth et al. [45] was 0.90. The additional 12 items were adopted from Bernerth et al. [45] which exceeded 0.90 of coefficient alpha. Leader-member social exchange (LMSX) scale that developed was based on uncertainty involved in social exchanges. Wayne et al. [46] claimed that social exchange as turn-taking or alternating behavior as social exchange makes no reference to a comparison other [45]. Dulebohn et al. [47] recommended that LMSX should be utilized as this measure focuses on the exchange process and reciprocity. Therefore, LMX7 and LMSX scales were combined as both were related to antecedent variables of PSM and precedent of ICB. The scale was accordingly modified to reflect supervisor perception of LMX. This instrument was able to assess the different and the same components of the supervisor-subordinate relationship which is consistent with the notion of social exchange.

C. Testing the Goodness of Fit Using Rasch Measurement Model

Several iterations were done by collapsing the data and deleting the items identified as misfits. A better fit instrument was finally constructed, showing marked improvement across various fit statistics including MNSQ, Z-Std, reliability, SE, and variance measured.

The results in Table 20.1 are the cleaned values (in **bold**) followed by the original instrument values which are shown in *italics*. The cleaned instrument

Table 20.1 Summary of cleaned values

Infit MNSQ SD	Item	**0.24** (*0.33*)	Person	**0.46** (*0.64*)		
Reliability	Item	**0.97** (*0.98*)	Person	**0.94** (*0.93*)	Person	**3.8** (*3.64*)
Infit MNSQ SD	Item	**0.24** (*0.33*)	Person	**0.46** (*0.64*)	separation	
Mean error	Item	**0.18** (*0.11*)	Person	**0.34** (*0.25*)		
PCA variance measure	**50.5** % (*42.0* %)		Unexplained 1st contrast			**4.7** % (*4.7* %)

Table 20.2 Summary of mediation result (5,000 bootstrap samples, $n = 420$)

IV	M	DV	Effect of IV on M (a)	Effect of M on DV (b)	Direct Effects (c′)	Indirect Effect (a*b)	95 % CI for a*b	Total Effects (c)
PSM	LMX	ICB	−0.06**	0.87**	0.013	−0.051	−0.072, −0.034	−0.037

IV independent variable, *DV* dependent variable, *M* mediator. In both analyses, the effects of the other independent variables were controlled for **$p < 0.001$, *$p < 0.05$

now shows a little decrease to 0.97 of item reliability but still indicating sufficiency of item range and the person mean which allows for further analysis of the instrument. The item scale range is wider at 5.13 logits against the person range of 8.97 logits as compared to the original instrument of 4.49 logits and 7.47 logits, consecutively. The item scale range increased by 0.44 logits, which is equivalent to 32.5 %. The PCA of explained variance also improved to 50.5 %, determining a strong measurement dimension [48].

20.5 Results

Bootstrap analysis which is known as INDIRECT, implemented by Preacher and Hayes [49] was used to assess the mediational model of leader-member exchange supervisor rating (LMX) as a mediator of the relationship between prosocial behavior motivation (PSM) and interpersonal citizenship behavior (ICB). In this analysis, LMX does mediate the effect of PSM on ICB.

Table 20.2 indicates the mediating effect of LMX on the relationship of PSM and ICB. The mean indirect effect from the bootstrap analysis was negative ($a \times b = -0.051$) and significant with a 95 % bias corrected and accelerated confidence interval excluding zero (−0.072 to −0.034). In the indirect path, the respondents who indicated high level of PSM were less likely to have LMX ($a = -0.06$), while holding constant for PSM, the respondents who had high level of LMX also will have a high level of ICB ($b = 0.87$). Therefore, H_1 and H_2 are supported. It is indicated that the direct effect c (−0.037) was not significant ($p = 0.139$).

Following the steps suggested by Zhao et al. [50], LMX is classified as direct-only mediation classification since path a × b was significant, but the direct effect was not significant. Hence, H_3 is supported.

20.6   Discussion and Recommendation

A survey which was done among the white-collar employees in Malaysia found out that organization commitment does not relate to senior employees in terms of age or length of service [51]. Even though a high quality of LMX relationship exists between supervisor and subordinate, ICB performers do not perform because of obligating others or to reciprocate a good deed [12, 52]. These literature reviews would support the finding of H_1 whereby employees who have high level of PSM do not need to have LMX to perform ICB.

A moderator analysis which was performed by Ilies et al. [6] clarified further the nature of the relationship between LMX and citizenship behavior. It was discovered that LMX was more strongly related to individual-targeted citizenship than to organizational-targeted citizenship. This supports the relational emphasis on LMX and shows that reciprocation is more likely to occur in the interpersonal relationship rather than organizational relationship. In the Malaysian context, Ramayah and Hui [53] studied the relationship between LMX quality and citizenship behavior among the executives and managers in Malaysian manufacturing organizations. They discovered a significant contribution of LMX on citizenship behavior among the employees. These studies support the finding of H_2 claiming that there is a significant relationship between LMX and ICB.

Bishop and Scott [54] cited in Settoon and Mossholder [12] recently proposed that employees who perceive high task interdependence may influence them to be more ego involved with their immediate work group members (negative relationship between PSM and LMX). Settoon and Mossholder [12] suggested that employees who are task-focused ICB oriented practice through some proximal variable (such as responsibility felt for others) and may cause potential of relational interdependence. These notions supported H_3 in the sense that LMX intervenes the relationship between PSM and ICB.

1. Implication for Practice

Individual Level. Prosocial motivation can have positive implications on employees who possess it. This study should be particularly advantageous as it was conducted in a Malaysian setting. As prosocial motivation, LMX quality, and interpersonal citizenship behavior are embedded in a particular society, this study should provide an insight of how Malaysian employees respond to these variables.

Managerial Level. In maintaining positive ICB among the employees, the study findings should shed some light on how supervisors could better achieve their objectives. Keeping high level of LMX quality with their subordinates is advised in any organization to promote organizational productivity. Supervisors are encouraged to develop good interaction and emotion trading with their subordinates. This eventually promotes ICB among the subordinates to increase organizational effectiveness. Support from the supervisors to the subordinates to participate in work teams may boost positive socialization [2, 55].

Organizational Level. It is believed that understanding the process paths by which LMX relationship impacts important performances (e.g., ICB) is crucial to advancing leadership and performance in the organization. In line with the Rating System for Malaysian Higher Education 2009 (Setara) [56], it is hoped that public universities could outline new benchmarks in achieving university key performance indicators to improve the rating status. LMX can indeed lead to desirable work outcomes, and it becomes imperative for employees to develop and maintain quality exchanges with their supervisors. In addition, organizations which are serious about helping their employees experience favorable work outcomes and should be more aware of the importance of encouraging the development of high-quality LMX relationships [57].

Implication for Theory and Research. The present study has important implications for the interpersonal citizenship literature. By studying the influence of employee motivation and leader-member exchange quality, the study provides a unique theoretical contribution that addresses the prior calls in the interpersonal citizenship literature for better understanding what, when, and why employees get motivated to perform their citizenship efforts.

2. Future Research

When the quality and quantity of performing ICB increase, effects on one's personal and professional outcomes may increase. For example, engaging too much and too frequent ICB may increase stress level and work-family conflict, harming one's in-role responsibilities. Investigating how much, why, and when engaging too much ICB for future research may help researchers of citizenship behavior area to understand when something positive becomes negative [32, 58].

More research is needed on how employees become prosocially motivated to help particular beneficiaries and serve particular causes and how these differences in PSM influence work behaviors and experiences. This question is significant in theory because it will extend individual understanding of the nature, content, and forms of PSM [35].

As recommended by Regts and Molleman [59], management practitioners could benefit by utilizing the results of this study in redesigning work. It offers organizations additional insights into task situations where ICB among employees is required employee psychosocial, along with characteristics of individuals that

determine the importance of receiving ICB from their coworkers. The present study suggests that for employees who have a strong PSM, or who are highly task interdependent with their supervisors and/or coworkers, a work situation that facilitates the receiving of ICB from coworkers is beneficial.

Lastly, ICB was measured from only the supervisor perspective. It is good to get the coworkers' perspective of ICB because they too are the individual target of getting the help. Peer rating is less deficient, covering the performance extent as perception via multiple lenses.

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Chapter 21
Smartphone Product Appearance: What Drive Consumers' Purchase Decision?

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Abstract Product appearance has been recognized as one of the sources of competitive advantages of a company. This study was carried out to understand the roles of the product appearance in consumers' buying decision of smartphone. Five different roles of product appearance, namely, aesthetic, symbolic, functional, ergonomic and attention drawing, were examined in this study. The smartphone brand tested in this study is the Samsung Galaxy series which is one of the most popular smartphone brands. One hundred fifty-seven responses of Samsung Galaxy users were gathered in this study, and the data were analysed using the analytic hierarchy process technique. The results showed that functionality of the smartphone acts as the most important criterion to the respondents in making their purchase. This was followed by product aesthetic and product ergonomics. Managerially, the findings of the study provide significant input to the smartphone producers in improving product design development. The study also offers the marketers useful information on the products' selling points. Future research recommendations are highlighted.

21.1 Introduction

The smartphone market represents one of the largest and the fastest growing markets in the world of consumer electronic products. In 2011, smartphone products indicated 38 % volume growth on sales to reach almost 2.5 million units in Malaysia's smartphone industry [1]. The main players in the smartphone industry globally are Samsung and Apple who jointly make up 53 % of the smartphone market. Samsung and Apple own 29 % and 24 % of the market share, respectively [2].

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In the rising of competition, product appearance is important to create a company's product identity over its competitors'. As stated by Hoegg et al. [3], product appearance can act as a point of differentiation and serve as a source of competitive advantage to the company. Product appearance or design can be referred to as activities that create the style, look and feel of a product. It has been identified one of the most important elements for creating such superior value proposition [4]. In addition, Chitturi et al. [5] state that one of the purposes of design is to improve synergy between the product design benefits and the marketing information such as brand or price.

The appearance of a product determines consumers' first impression of the product, and it can communicate the product advantage by just looking at the product [6]. Accordingly, the appearance of a product helps consumers to assess the product on functional, aesthetic, symbolic or ergonomic motives [7].

A smartphone industry has been regarded as an attractive market, and the global market has seen many big competitive smartphone companies competing in the industry. These include Samsung, Apple and Nokia. Samsung, the smartphone market leader, has spent about USD 9.3 billion on research and development (R&D) to provide the best product development and innovation [8]. The needs to have better understanding on the smartphone's product attributes that triggered the consumers' purchase decision are hence crucial to the company in ensuring the effectiveness and the direction of their future R&D investment.

In view of the above-identified needs, this study is carried out to fulfil the following objectives: (1) to explore the roles of attention-drawing ability and aesthetic, symbolic, functional and ergonomic product values in consumers' buying decision process and (2) to determine which roles of the product appearance are most important to the customers in purchasing Samsung Galaxy smartphone products.

Academically, the study is important as to enhance the knowledge in product factors influencing buying decision of smartphones based on the consumers' actual purchase.

Managerially, the results of the study are expected to assist the smartphone companies in designing their R&D and marketing activities.

21.2 Review of Literature and Development of Conceptual Framework

This section aims to provide review on the smartphone product appearance components and their roles in consumer buying decision process. Based on the review, a conceptual framework of the study is identified, and this framework is presented at the end of the section.

A. *Product Appearance*

Product appearance is one of the intrinsic cues and also known as one of the factors that influence the purchase of a certain product. Design refers to bundling of attributes that enhance the product's utility to a given market. It requires identification of purchase-driving key attributes and their relative importance on the basis of customers' level of preference [4].

A smartphone is a mobile phone that is built with a mobile computing platform. A smartphone is more advanced compared to a normal mobile phone from the point of computing ability and connectivity. A smartphone can be referred as the combination of the personal digital assistant (PDA), mobile phone or camera phone. The features of a smartphone include portable media player, low-end compact digital cameras, pocket video cameras, GPS navigation units, high-resolution touchscreens, web browser that is better than mobile-optimized sites, high-speed data access via WIFI and mobile broadband.

Product appearance needs to be deduced into categories that influence the consumers. A work by Creusen and Schoormans [6] indicates that there are six different roles of product appearance that influence the consumers' product evaluation and product choice. The six different roles are communication of aesthetic, symbolic, functional and ergonomic information, attention drawing and categorization:

1. Aesthetic Product Value

   The aesthetic value of a product appears when consumers look at the product without consideration about the utility of the product. From the 'look', the consumers tend to judge the attractiveness of the product, for instance, either it is beautiful or not. The factors that influence the aesthetic value include the colour of the product. The desirability of a colour will change according to the object to which it is applied and with the style of the object [9]. Cultural, social and personal factors also have an influence on design taste [6]. The personal factors include the design acumen, prior experience and consumers' personalities [10].

2. Symbolic Product Value

   Symbolic value can be referred as the product that can express consumers' self-image. Symbolic meaning can be expressed through the product brand, advertising or the product's country of origin. But, the product can communicate its symbolic value in a more direct way, namely, by its appearance [6]. Creusen and Schoormans [6] cite that the product can be cheerful, boring, friendly, expensive, rude or childish based on the product appearance itself. Many companies consistently use certain design elements such as colour and style to indicate the symbolic values of the product. For example, BMW used the radiator grille as their symbolic design in their car.

3. Functional Product Value

   The functional value of a product relates to the utilitarian functions of the product. Products differ in the degree to which they are suited to perform their

basic utilitarian function such as communication and transportation and also in quality and its features [6]. For example, handphones can be purchased with touchscreen and keypad. The presence of such options influences the functional value of the product to the consumers [6]. The utilitarian function can be observed from its appearance. In addition, the product appearance can be used as a cue to know the functions of the product. The physical product appearance suggests quality signal to the consumers, such as whether the product is reliable or not.

4. Ergonomic Product Value

Product ergonomics is the 'human factors' that relate to the comprehensibility and usability of a product to perform and communicate its utilitarian functions [6]. In other words, product ergonomics is something that when consumers use the product, they will feel comfortable to use it. When consumers buy a product through a catalogue or the Internet, they will usually form a first impression about the product's comfort and others. The appearance of a certain product such as the shape, weight or buttons might give a clue, and consumers might perceive whether the product will be easy to use or not. For example, too many buttons for a small-sized product might not be comfortable since consumers will likely to prefer it to be simple and easy to use.

5. Attention-Drawing Ability of the Product Appearance

Attention-drawing ability of the product appearance is the way how the products gain the attention from people. The products which visually stand out before other competitive products will have higher probability to gain the attention of the consumer in purchasing decision [6]. In order to gain attention, the marketer will usually use something to catch the consumer's eye for the product. For example, a certain product might be displayed in a place that will be noticed easier.

B. The Conceptual Framework

Basing on the above review, the conceptual framework of the study is depicted in Fig. 21.1.

21.3   Research Methodology

The target respondents of the study were the university students who own any model of Samsung Galaxy smartphone product series. Since the product used in this study is an advanced mobile phone product, the choice of young, urbanized and educated consumers are deemed relevant, and thus, the university students are regarded as an appropriate sample. The questionnaires were distributed to the
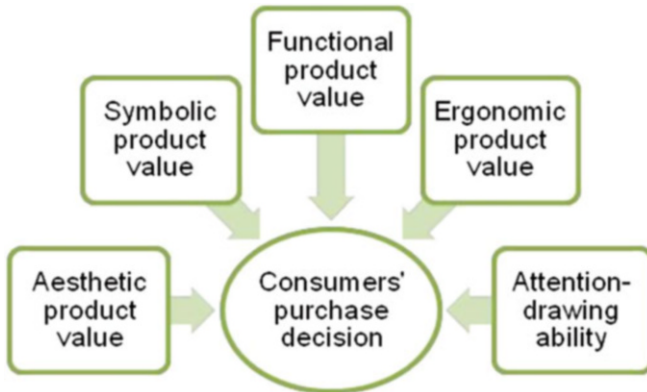
Fig. 21.1 Conceptual framework (Source: Adapted from [6])

respondents who were the undergraduate and postgraduate students at the largest public university in Malaysia located at Shah Alam City.

A. Instrument Design and Data Collection

- The questionnaire consists of preliminary questions on product ownership and model purchased, followed by the sections on the respondent's demographics and factors influencing their buying decision. The five product attributes surveyed are (1) aesthetic product value, (2) symbolic product value, (3) functional product value, (4) ergonomic product value and (5) attention-drawing ability of the product appearance. Each of the attributes are measured by a preference scale of 1–9 (1 indicates equally preferred and 9 indicates extremely preferred). Samsung Galaxy series are chosen due to its changing product appearance since the first release of the product line which contributes to multiples of product appearance. Samsung Galaxy also represents one of the popular brands of smartphones.
- The questionnaire was self-administered to the respondents at four libraries of the university using convenience sampling. The library is viewed as a strategic venue as the respondents can be approached in a calm and relaxing environment. In addition the library is a place where most students spend their time at. The completion of the questionnaire took approximately 15 min.

B. Data Analysis Plan

The data are analysed by using the analytic hierarchy process (AHP) technique. Most of the results are presented in graphical data for better understanding. The analytic hierarchy process (AHP) is a structured technique for analysing complex decisions. The AHP technique will help to analyse which roles of the product appearance contribute to consumers' purchase decision. There are five steps in the AHP technique, namely, (1) list the overall goal, criteria and alternatives and construct the hierarchy structure, (2) develop a pairwise comparison matrix, (3) develop a normalized matrix step, (4) develop the priority vector and (5) calculate a consistency ratio (CR).

21.4 Analysis and Results

One hundred eighty questionnaires were returned and 157 of these respondents owned a Samsung Galaxy smartphone. The most model owned by the respondents was 'Samsung Galaxy S' (28.1 %). The findings show that majority of the respondents were from the age group of 23–27 years old, and most of these respondents were bachelor's degree students. Table 21.1 provides a summary of the respondents' demographic background.

A. AHP Analysis

The objective of the present study is to determine which roles of the product appearance contribute most to the purchase decision. As stated earlier, five roles

Table 21.1 Respondents' demographic profiles

Variables	Total	%
Gender		
Male	56	36.0
Female	101	64.0
Age group		
18–22 years old	72	46.0
23–27 years old	79	50.0
28–32 years old	4	3.0
Above 32 years old	2	1.0
Education level		
Pre-degree	3	2.0
Diploma	1	1.0
Bachelor's degree	128	82.0
Master's degree	25	16.0

were examined, namely, aesthetic (design or feel), symbolic, functional, ergonomic and attention-drawing ability (product charm). Pairwise comparison questions were developed for this reason. Likert scale was used for each comparison.

As per AHP analysis requirement, the data measured by Likert scale in the survey were transformed to a new scale, ranging from 1 to 9 in SPSS. These data were analysed to find out the central tendency, and median was used as the method to determine central tendency.

The median value was used to determine the scale that would be used in pairwise comparison analysis. Median value ranging from 1 to 4 indicated the respondents' preferences towards the left item being compared. Median value 1 showed equal preference between both items compared and median value ranging from 5 to 9 indicated the respondents' preferences towards the right item being compared.

B. Pairwise Analysis

The first step in pairwise analysis was to develop pairwise matrix ranking criteria, since pairwise matrix ranking criteria were developed from the questionnaire; Table 21.2 will be used for the first trial of pairwise analysis. The second step was to develop a pairwise matrix for all five roles being compared.

The most important part in pairwise comparison is to determine the consistency ratio in order to determine the pairwise judgement and data trustworthiness. The first trial of the analysis indicated a high consistency ratio of 0.243 which was above 0.1. Thus, the pairwise ranking criteria need to be revised, and the revised version of pairwise comparison was developed using smaller ranking criteria scale as shown in Table 21.3.

Table 21.2   Pairwise matrix development

	Functionality	Design	Ergonomics	Product charm	Symbolic
Functionality	1	5	5	5	5
Design	1/5	1	3	5	3
Ergonomics	1/5	1/3	1	5	5
Product charm	1/5	1/5	1/5	1	5
Symbolic	1/5	1/3	1/5	1/5	1

Table 21.3   Revised pairwise matrix development

	Functionality	Design	Ergonomics	Product charm	Symbolic
Functionality	1	3	3	3	3
Design	1/3	1	2	3	2
Ergonomics	1/3	1/2	1	3	3
Product charm	1/3	1/3	1/3	1	3
Symbolic	1/3	1/2	1/3	1/3	1

Table 21.4 Pairwise average weight results

Roles	Priority vector
Functionality	0.3963
Design	0.2175
Ergonomics	0.1854
Product charm	0.1204
Symbolic	0.0804

The new consistency ratio for the revised pairwise comparison matrix was found at 0.10, which was the closest value this research analysis was able to get towards the pairwise judgments and data trustworthiness.

The priority vector developed from this analysis will then indicate which one of the five roles being compared represents the most important factor that influences the purchasing decision. As highlighted in Table 21.4, the results showed that functionality recorded the highest value (39.6 %), indicating this as the most important factor that influenced the respondents' purchase decision of a Samsung Galaxy smartphone. This was followed by design (21.7 %), ergonomics (18.5 %), product charm (12.0 %) and symbolic values (8.0 %).

21.5 Discussion, Conclusion and Future Research Suggestion

The key objective of this study is to examine the product appearance roles in the consumers' purchase decision of a Samsung Galaxy smartphone. Five roles were investigated, namely, aesthetic, symbolic, functional, ergonomic and attention-drawing ability of the smartphone.

As highlighted in the results section, product's functionality was found as the most important criterion influencing the consumers' purchase. This finding expected as 'functionality' is the key role which differentiates smartphones from feature phones. Functionality also includes the operability of the smartphone to perform advanced computing availability in terms of performances. Thus, it is important for Samsung to produce a smartphone which can provide the consumers with the best specifications for the functionality. It is recommended to the company to focus on the software and hardware development by featuring optimum functions based on the functionality criteria. Also, as a suggestion, Samsung should produce faster technology for Internet browsing ability and social media accessibility. The findings show that these function criteria were the most important features a smartphone should have in addition to call and message functionality.

The second most important role is the visual appearance (aesthetic) of the product. This role provides the visual feel of the products. Further research is needed to be carried out to look into the personal influence over visual appearance

from a larger perspective. This may assist the companies to come up with a visually appealing product or model.

Product ergonomics is the 'human factors' that relate to the comprehensibility and usability of a product to perform and communicate its utilitarian functions. It suggests consumers an impression of the ergonomics sense even without touching or using the smartphone. It could also be described from the weight or size of the smartphone. However, these preferences might differ from time to time. As for screen size, in early time the mobile phone industry had seen the preference of smaller phone, but since the emerging of the smartphone era, the preferences changed to a larger screen for better comprehensibility. Thus, the companies should be alert on the change in consumers' trends and demands. Meanwhile, the utilitarian functions could be described in terms of the usability of certain features on the phone such as the number of buttons. As for certain people the number of buttons would bring significant human factor in utilizing the smartphone; too many buttons could sometimes lead to usability confusion of the smartphone. Future research may look into segmenting the consumers' preference over product ergonomics. This may provide better idea to the smartphone developers regarding user types to focus on in the future [11].

Product charm as previously described is an ability of certain products to be visually outstanding over other competitive products. Although this study found that this role is not at the top priority in the consumers' preferences, further research in this area may generate interesting findings by studying the consumers' responses on other external factors such as brand logo, brand credibility and brand loyalty. As argued [12], the consumers' myth impression of the specific brand existed prior to the decision to buy the product, and this may override their objective choices.

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Chapter 22
A Conceptual Framework on Determinants of Enterprise Risk Management (ERM) Adoption: A Study in Manufacturing Small and Medium Enterprises (SMEs)

Siti Musliha Mohd Idris and Azizan Abdullah

Abstract Enterprise risk management (ERM) has received increase attention among business communities and researchers in Malaysia. Yet, ERM is still in the beginning phase among Malaysian companies. Despite this development, there is little research on factors associated with the adoption of ERM. Additionally, most of the previous studies only focus on large enterprises and financial institutions. Subsequently, there are still quite a few studies conducted in this area, and specifically in a developing country like Malaysia, this study will be a benefit in increasing the scope of literature and fulfill the research gap by providing study insight in the SMEs. By applying the Innovation Diffusion Theory (IDT), the adoption process can be understood. The main objective of this paper is to propose a conceptual framework on the determinants of ERM adoption in SMEs. From the review of various literatures available in this particular area of interest, there are two factors or determinants of ERM adoption: technology attributes and organizational characteristics.

Keywords Enterprise risk management adoption • Technology attributes • Organizational characteristics

22.1 Introduction

In the new global economy, enterprise risk management (ERM) has become a central issue in making better evaluation of a firm's risk situation and further increasingly improved decision-making with regard to strategic and operative development [1–4]. ERM is an integrated way which means they are managing the risks holistically. In literature the name ERM is sometimes replaced by

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synonyms as Enterprise-Wide Risk Management (EWRM) [5]. From the history, the basic root of ERM is risk management. In 1963, the first risk management text entitled *Risk Management and the Business Enterprise* was published. The objective of first risk management was only to maximize the productive efficiency of the enterprise. Then, risk management was specifically focused on pure risks and speculative risks [6]. As information, risk management also had been called as traditional risk management (TRM). Yazid et al. [7] had highlighted that ERM is clearly different from traditional risk management (TRM). With respect to TRM, risks are being treated and managed in "silos," whereas ERM integrates or aggregates all types of risks faced by the companies concerned [6, 7]. There are many differences between ERM and TRM and the main differences are the scope of risk coverage and the way they manage the risks.

However, the rapid development of technology and management has forced researchers and business practitioners to realize the inefficiency of the traditional approach of risk management [8–10]. In response to continuous improvement in performance and rapid changes in internal and external factors as stated by Gatzert et al. [11], those reasons have made many businesses more prone to the adoption of ERM to prevent any debacle that could create major consequences [8]. This is due to the demand of a broader risk scope, a higher risk complexity, and increasing interactions and dependencies between risk sources [11].

Based on the empirical findings in the study by Yazid et al. [12], only 18 % of manufacturers practice risk management and have implemented ERM in their strategic business operations. In addition, in the study by Wan Daud [13], it was stated that there are only about 43 % of public listed companies that practiced ERM. In Malaysia, the implementation of ERM is still slow [14]. Though, recently there has been an increasing interest in ERM among researchers and business communities [7, 15–19]. There are even past studies that verified that the ERM concept has received positive attention, but still the concept is not widely practiced in Malaysia. It is rather important to notice that scholarly research and empirical evidence in relation to the determinants of ERM concept are obviously lacking [14, 18]. Moreover, there is a gap in the literature since the studies on ERM are still lacking and most of the previous studies only focus on the area of large enterprises rather than the SMEs. Therefore, this paper aims to propose a conceptual framework on the determinants of ERM adoption in manufacturing SMEs.

A. Small and Medium Enterprises (SMEs)

Small and medium enterprises (SMEs) had been considered as the backbone of the Malaysian economy [10]. This is due to their resilient contribution to the output and value added. Malaysia has adopted a common definition of SMEs to enable identification of SMEs in the various sectors. An enterprise belongs to the SME group in each of the respective sectors based on the annual sales turnover or number of full-time employees [20] (refer to Table 22.1).

Table 22.1 New definition of SMEs

Sectors	Small	Medium
Manufacturing	Sales turnover from *RM300,000 to less than RM15 million* OR full-time employees from *5 to less than 75*	Sales turnover from *RM15 million to not exceeding RM50 million* or full-time employees from *75 to not exceeding 200*
Services and other sectors	Sales turnover from *RM300,000 to less than RM3 million* or full-time employees from *5 to less than 30*	Sales turnover from *RM3 million to not exceeding RM20 million* or full-time employees from *30 to not exceeding 75*

Sources: SME Corporation websites (www.smecorp.gov.my)

The role of SMEs in the Malaysian economy is demonstrated by their contribution to the output and value added [21]. It is reported in the [22]), which stated that SMEs provided 32 % of GDP and 59 % of employment to the Malaysian market. There remains a small percentage of export performance of 19 % as reported by the 2012–2020 SME Masterplan. Furthermore, the Asia-Pacific Trade and Investment in 2011 identified a much lower export performance among Malaysian SMEs as compared to other dynamic exporting countries.

It is widely known that the manufacturing sector is the second largest sector among the SMEs but recorded as the highest proportion in terms of gross output (60.9 %) [23]. According to a study by Hoq et al. [24], they reported that export share is led by the manufacturing sector in 1996, 2000, and 2005. In 2010, there are 37,861 establishments (95.4 %) categorized as SMEs in the manufacturing sector from a total of 39,669 establishments [23].

Reviewing the works of Muhammad et al. [10], risk is considered a norm and faced by firms daily, particularly among SMEs in all industries. The strength of these SMEs lies in their strong defenses against risk, either in domestic economies or at their international presence. Besides, Zacharakis et al. [25] had identified several reasons for failures of small businesses that include both internal and external causes. Then, the internal causes of failure are poor management, failure to adopt a risk limit at the beginning, and the lack of risk management planning [26].

In addition, Islam and Tedford [27] stated the majority of the studies in SMEs found that they do not have systematic risk management strategies in place. It is because of some infrastructural, technological, financial, and human resource-related limitations; due to those reasons, SMEs have a limit and keep their businesses away from adopting towards a better strategic risk management [27].

Actually it would affect their profitability and sustainability if all those risks are not well managed by the risk management. Therefore, by embedding a structured approach to enterprise risk management within SMEs, potential benefits such as reducing the over-management of risks and organizational alignment towards the SME's vision can be realized [28]. In the way of managing risk, ERM is part of an overall business strategy and is designed to protect and enhance the shareholder value [4].

Nevertheless, the topic of risk management in small businesses still can be countable research on Malaysian evidence [29]. Indeed, this paper would help SMEs to overcome this lack of initiatives and subsequently build capability to develop risk management knowledge, and implementing the strategies that can restrict the sustainable development of such firms would be looked into.

22.2 Literature Review

Nowadays, the concept of risk has always been present in the industrial environment, whether large or small scales of businesses. Risk management capability building should be an interest to SMEs for several reasons such as facing various risks and forces of the external and internal environment [30]. For this motivation, the effective risk management of enterprises is particularly important especially for SMEs as a source of flexibility and innovation, and that provided significant contributions to the Malaysian economy.

A. *Innovation Diffusion Theory (IDT)*

Through the review of some related research, it is directed that IDT is the most popular theory used in explaining the adoption process because it explained the adoption process at the firm level while the other theories like technology acceptance model (TAM) by Davis [31] and theory of planned behavior (TPB) by Ajzen et al. [32] are at the individual level. This is in line with Wonglimpiyarat and Yuberk's [33] view that stated that they applied Roger's concept of IDT to develop a better understanding of the adoption process.

In the study by Oni et al. [34] and Wamba et al. [35], it was verified that IDT indicates that businesses would decide to adopt an innovation mainly because of its characteristics, thus missing out other influences, that is, the organizational characteristics. Therefore, this paper will propose to include the organizational characteristics under persuasion phase in IDT model as the development in the conceptual framework.

B. *Enterprise Risk Management (ERM) Adoption*

Based on the earlier concept of ERM by Yazid et al. [7], the study by Razali and Tahir [6] appears to provide a solid foundation to conclude the contrast between ERM and traditional risk management (TRM). In ERM, the multiple perspectives of risks had been mitigated and are managed in an enterprise-wide approach [1, 6].

Numerous research reported the status of ERM adoption in some countries and areas which have received increasing attention but lacking in terms of research towards ERM adoption. According to Mohd Abdullah et al. [17], they found only a small scale of ERM implementation in the developing countries due to uncountable barriers from implementing ERM [36, 37]. A recent study conducted by Beasley et al. [38] suggested that current stages of ERM implementation in most organizations are under development stage.

A study by Golshan and Rasid [16] mentioned on adoption of ERM as a voluntary concept where most studies demonstrate that although ERM is known as an effective and useful tool for managing risks surrounding firms, not all firms have adopted ERM [24]. In essence, Yazid et al. [19] measure the level of adoption of whether it is a full or a partial adoption. Extend to the study by Golshan and Rasid [16], the existing literature on ERM where they measure ERM using the Chief Risk Officer appointment as a proxy for ERM adoption. In relation to adoption measurement, where the concept of ERM acceptance is a voluntarily concept, the adoption is measured using a constraint that lies between yes and no [39]. Then, in the study of Yazid et al. [19] and Wan Daud et al. [40], they used the ordinal scale to measure adoption of ERM such as 5, complete ERM; 4, partial ERM; 3, planning to implement ERM; 2, investigating ERM; and 1, no plans to implement ERM. While in the other studies, by Pagach and Warr [3], Altuntas et al. [15], and Golshan and Rasid [16], a in the existing literature on ERM where they measure ERM using the Chief Risk Officer appointment as a proxy for ERM adoption.

C. Determinants of ERM Adoption

Since ERM has not been fully implemented in the majority of the companies, the author was attracted to investigate factors that influence the adoption of ERM to manage uncertainties that arise within SMEs.

1. Technology Attributes: these five factors are relevant to be maintained as originally from IDT, and it is to perceive the considering factors in decision-making on ERM adoption.

    (a) *Relative Advantage*
        Zendehdel and Hj Paim [41] highlighted that there is a relationship between relative advantage and the adoption of innovations; there is a significant relationship. All respondents respond that the adoption process can be done because they realize the strategic benefit of e-commerce adoption for the companies. And Wamba et al. [35] had mentioned in their findings that the reason the companies joined the research funding is because they saw the advantages in learning the new technology that also benefit them to expand the product portfolio in later stages.

(b) *Compatibility*

It refers to the degree to which a technology innovation is perceived consistent with the existing values, past experiences, and needs of potential adopters Zendehdel and Hj Paim [41] and Robinson et al. [42]. According to Zendehdel and Hj Paim [41], the innovation must be suitable with the culture, beliefs, values, and practice of the organization. From their study also, they had verified that compatibility of innovation has a significant effect towards the influence to adopt it.

(c) *Complexity*

According to Chang et al. [43], complexity is the degree of difficulty that a user has in using a technology innovation, and from their findings it becomes an important factor that influences users' adoption of such innovation. In other words, this factor uses "ease of use" which is considering the technology innovation as easy and simpler to understand, and it will increase the intention of users to adopt it [42].

(d) *Observability*

The observability involved both how observable the promotion of the services was and how their practice was observed [44]. Völlink et al. [45] stated that the observability of an innovation refers to the degree to which the results of an innovation are visible to potential adopters. Aside from the study by Hsu et al. [46] found in their study that observability in the other word the result of demonstrability were not significant predictors of adoption intention.

2. *Organizational Characteristics*: consist of four dimensions which are top management, leverage, firm size, and firm industry as considerable factors.

(a) *Top Management*

SMEs mainly have simple and highly centralized structures with the Chief Executive Officers (CEOs) in which the owner and chief manager mostly are one and the same person [47]. In the study on ERM adoption, Beasley et al. [48] highlighted that an ERM initiative cannot succeed without strong support in the organization from senior management, and they have found that top management support is important to the success of a variety of initiatives.

(b) *Leverage*

Average leverage of a firm has been considered as an influencing factor in ERM implementation decision-making [49]. However, Razali et al. [39] had found that leverage is not significant in explaining the ERM practices. Razali et al. [39] indicated that there is no relationship between leverage and ERM, implying that companies with higher financial leverage are not likely to adopt ERM.

(c) *Firm Size*

It is a rational argument that when an organization's size increases, the nature, timing, and extent of the events threatening it will be different as well. Additionally, larger entities are able to dedicate greater resources for

Fig. 22.1 Proposed conceptual framework
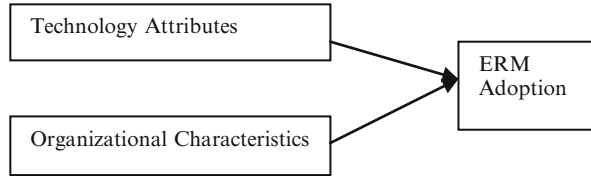
implementing ERM [48]. Moreover, the study of Pagach and Warr [3] who investigated the characteristics of firms that hire CROs revealed that larger firms have greater risk of financial distress and more volatile operating cash flows, and as a result they are more likely to adopt ERM practices. However, in the study by Razali et al. [39], it shows that size factor is not significant in explaining ERM practices. This intimates that the size of the firm does not matter in choosing to adopt ERM practices.

(d) *Firm Industry*

Firm and industry characteristic itself also plays its role as the determinant factor to implement ERM. In their study, Manab et al. [50] indicated that ERM implementation in financial firms is higher than in nonfinancial firms. Where the proportion of financial sector that has proved this risk management linked to decision-making process higher than nonfinancial sector as well as the internal risk reporting process. According to the study by Beasley et al. [48] on the level of ERM adoption of 123 firms, they found that firms in banking and insurance industries have deployed further-developed ERM. Therefore, based on the literature review, this conceptual framework is proposed (refer to Fig. 22.1).

22.3 Research Methodology

In this study, it is feasible to use the mix of exploratory and descriptive study. This is due to the fact that this study is exploratory in nature and was used to understand the developing phenomena of ERM adoption especially in the SMEs' context since ERM is still in the beginning phase in Malaysia. Purposely, many authors and researchers descriptively study the stage of ERM implementation based on the surveys, questionnaires, and interviews [11].

The unit of analysis of this present study is organizations, which are a group of personnel in the SME manufacturing companies. The group of personnel consists of risk manager, manager, owner, and top management. According to D. of S. Malaysia [23], it shows that there are 645,136 SMEs operating in Malaysia, which represent 97.3 %. In 2010, there are 37,861 establishments (95.4 %) categorized as SMEs in the manufacturing sector from the total establishments. In relation to that, the total number of SMEs in the manufacturing sector in Selangor is 8,314

(22 %), showing the establishments of SME manufacturing in Selangor as the highest percentage of distribution by state.

A. Sampling

In a developing country like Malaysia, it is easier to access businesses if there is recommendation from government agencies [51]. Therefore, the sampling frame for this study from the list of recommended manufacturing SMEs from the SME Corporation list of business directory would be used to identify the sample for this study.

In this study, the stratified proportionate random sampling technique will be used to get the amount of samples because the manufacturing SME consists of several subsectors [18, 52], and using stratified proportionate random sampling could give equal distribution among subsectors.

B. Data Collection Method

The use of survey questionnaires will be applied in this study based on those commonly used for previous ERM studies [48, 49]. Then, the literature is collected using secondary data from the past literature and previous studies in related area.

C. Plan of Data Analysis

In this study, the dependent variable is a categorical variable which will be analyzed using frequency. The author will use correlation and regression to examine the relationship between technology attributes, organizational characteristics, and ERM adoption, whereby correlation is used to explore the strength and direction of the relationship between two variables. A regression analysis examines the relation of the dependent variable (response variables) to specified independent variables. Validity test is the extent to which a test measures what it is supposed to measure, while reliability analysis is the degree to which a test measures consistency and stability.

22.4 Conclusion

In summary, there is limited literature on ERM studies and countable amount of research on risk management in SMEs. Thus, this is an opportunity for this research to be proposed, and it will increase the knowledge on ERM issue and ERM adoption research. The main objective of this study is to identify the relationship between influential factors and the ERM adoption in SMEs. It has been pointed out from literature that there are two factors that had been proposed as independent variables in the conceptual framework that could possibly influence SMEs to ultimately adopt ERM. These factors include technology attributes and organizational characteristics.

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Chapter 23
Criteria Selection for Halal Casual Dining Restaurant

Ahmad Rusydi Razak, Hadijah Iberahim, and Rohana Kamaruddin

Abstract The purpose of this paper is to explore the potential criteria of halal compliance in halal food supply chain. The criteria explored in the study are the stakeholders in halal supply chain, namely, the authority body, manufacturer, logistics provider, operator, consumer, and the government. A pilot study of 30 questionnaires has been distributed to identify important criteria and sub-criteria. The survey addressed the perceptions of the consumers on halal supply chain of casual dining restaurants, using score method. The result shows that all the criteria are important with at least seven of mean score and can be considered to be subsequently analyzed using the analytic hierarchy process (AHP) model. This preliminary study provides inputs to the selection of important criteria for halal food supply chain in order to establish priority index using AHP.

Keywords Halal compliance • Halal supply chain • Analytic hierarchy process

23.1 Introduction

The consumption and promotion of the halal food is becoming significant among the Muslims and even the non-Muslim consumers as it associates with quality, cleanliness, and safety. The concept of halal encompasses the entire value chain of commercial activities. This is because the consumers are now concerned about all the activities along the supply chain of the halal food products and not to the manufacturing process only [1]. However, lack of consideration on Islamic ethics and values has resulted in poor attitudes that led to noncompliance of halal requirements among restaurant operators in Malaysia. Some of the critical issues are lack of knowledge in (1) halal concept, (2) cost of implementation, (3) cost of changes, (4) suppliers management, (5) demand from consumer, (6) governance, and (7) lack of monitoring and enforcement. While a study suggests the improvement on operators, suppliers, and governance to guarantee consumers getting halal and toyyiban aspects of food preparation [2], other study proposes halal

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certification as one of the determinants to restaurant operators [3]. To date, there are over 35,000 restaurants in Malaysia but only a few are certified by JAKIM [4]. In Selangor, almost all "kopitiam" restaurants are halal certified while only 10–18 % out of 180 "kopitiam" restaurants are applying halal certification from JAIS [5] in other states. JAKIM reported that till December 2012, there are 4,292 halal certification holders in Malaysia [6].

While fast food restaurants have established well-defined procedures to cater the requirement of food safety, including the halal concept for its inputs (raw material), process (preparation at site), and the quality of outputs, issues related to casual dining restaurants remain unresolved. Though some of the casual dining restaurants decided to put up the label of "No Pork" or "Non-Halal," most of the restaurants did not put up any information. The amendment of halal law, for example, 2011 Halal Trade Act, allows the governing body to charge any individual who caused confusion and misinterpretation by displaying unrecognized halal logo with an amount not exceeding RM1 million, jailed for not more than 3 years or both. The law also includes charges toward individuals or companies or bodies who found to have abused the sacred words of the Quran [7]. The benefit of sole issuer logo of halal certificate is an effort to protect consumers and prevent confusion among buyers. According to HDC, many of issuers may reduce consumers' confidence in the market [8]. The role of halal logo is a code to make sure the consumers' confidence and a better effective guarantee of the context of halal. However, having halal logo is not mandatory neither it is compulsory [9,10].

The issue of halal is crucial in casual dining restaurants because the process of preparation is mainly done at site where the cooks, kitchen, and storage area are internally organized and monitored without any standardized procedures. Halal compliance required the strict separation of product and hygiene. It applies to the entire supply chain which includes the manufacturing, transportation, warehousing, and freight handling [1]. Halal compliance also obligated to international standard operational Hazard Analysis Critical Control Point (HACCP) such as MS 1500:2009. The halal compliance ensures the raw material, handling, processing equipments, processing aids, packaging, storage, transportation, distribution, and retailing to be safe as well as halal [11].

Importantly, numbers of reports and claims made in response to the noncompliance of halal requirements have shown an increasing trend. Inquiries are consistently made to JAKIM due to identified ignorance of the restaurants' owners. It was not only reported by the customers but also based on the findings of inspections conducted by the governing bodies such as JAKIM and JAIS [4]. For these reasons, it is important and timely to investigate the degree of understanding among consumers on what is perceived important in the provision of halal food, particularly, to attain halal food supply chain network for primary food providers. Thus, the objective of this paper is to identify important criteria of halal food supply chain from the view of the consumers of casual dining restaurants.

23.2 Literature Review

A. *Halal Food Supply Chain*

The food supply chain consists of consumer, retailer, transporter, wholesaler, transporter, and food manufacturer [12]. Generally, food supply chain starts from farm supplier to farm, marketer, processor, wholesaler or distributor, retailer or caterer, and, lastly, consumer [13]. Halal supply chain refers to the process of supply chain that must be halal starting from the source of supply until it reaches the customer [1]. It means that the halal supply chain must be from farm to fork. Such characteristic of halal supply chains is based on the complex set of local, regional, and international halal standards, manufacturing, and distribution zones [14]. This is why we should have the unifying standards in halal supply chain. Halal supply chain also is defined as "a process which must be halal from the sources of the supply until it reaches the consumer" [15]. It means that the halal is not based on trust by consumers when they are at the restaurant, but the halal process must be complied along the supply chain before the materials or ingredients reach at the restaurant. Besides, halal management refers to the management of all the functions and activities necessary to produce halal products [16]. Importantly, starting from farm, for example, at the slaughtering house, the management of the materials and resource must meet the halal compliance.

Meanwhile, a study found that the halal awareness is contributed by the understanding of halal concept through practices [11]. But the people mostly assume that all goods produced and marketed in Malaysia are halal. The factors of halal demand are contributed by awareness of Muslims and role of government [17]. It means that the halal environment should be alerted by consumers and controlled by the government. The role of government's authority body is to award the halal certification to any party who applied it after an on-site inspection, evaluation, and recommendation on halal certificates. The role of certification is very important whereby obtaining it is a form of social obligation and will help to gain trust and confidence among Muslim consumers. The certification is awarded when the concept is fully implemented which refers to the entire activities along the supply chain [18].

Food manufacturers usually supply their products to distributor or retailer. The products then are supplied to restaurant operators. By doing so, the halal quality of products is important before it is used by the restaurant operators. Halal quality in food manufacturing refers to clean, safe, and well taken care of, with good presentation and served in a proper manner and serve quality for all [19]. Food manufacturing is a critical part where most material and ingredients in casual dining restaurant are by farmers or food processors. By doing so, a research suggests the religious-ethnical quality regulation which are (1) activities of enterprises manufacturing products and enterprises of the whole support chain for the products; (2) terms of growing, selecting, and killing animals; (3) requirements to the personnel; (4) hygienic requirements; (5) religious requirements;

(6) accreditation of certifying organizations; (7) quality of food and ingredients; (8) quality of perfume cosmetics products and their ingredients; (9) quality of self-hygiene products; (10) quality of drugs, medicaments, and their ingredients; and (11) quality of services [20].

But the most important point is a system to ensure the quality. To date, the existing system is based on standard or guideline that has been introduced by accredited body, for example, MS 2400:2010 (Halalan-Toyyiban assurance pipeline), good manufacturing practices (GMP), and good hygiene practices (GHP), and the existence of internal committee audit (optional to a company); for instance, a study reveals several aspects toward halal traceability and quality internally which are: (1) the company ensures that the halal certification is issued by relevant authority, (2) the quality assurance (QA) department will send a list of new products together with list of ingredients used and source of ingredients to the halal committee, (3) the employees are guided by officers during preparation and processing to ensure the products' safety and hygiene, (4) the company keeps a study of the practices of halal standard, (5) the company uses the documentation system during processing and production to trace the problems and causes, (6) the company uses the high technology to save cost and time, (7) the company always receives feedback from consumers for quality improvements, and (8) the use of technology to reduce the labor cost [21]. Those activities are comprehensively carried by companies to ensure profitability and loyalty of consumers.

In supply chain, logistics is the combination of a firm's order management, inventory, transportation, warehousing, materials handling, and packaging so as to move and geographically position inventory [22]. The importance of logistics is to support procurement, manufacturing, and customer accommodation supply chain operational requirements. The work of logistics comprises of (1) order processing; (2) inventory; (3) transportation; (4) warehousing, materials handling, and packaging; and (5) facility network [23]. For each activity, it is critical to ensure the halal compliance such as the segregation practices. A research suggests that the critical control points among logistics providers are (1) warehouse (cold storage), (2) handling of goods, and (3) transportation. The critical control points among industry are the (1) packaging and (2) partition.

The researchers concluded that there is no specific requirement for halal certification for overall logistics operations. The researchers suggested that there should be a consistent and integrated standard halal compliance processes between the stakeholders – such as in materials sourcing, handling, storage, processing, transportation, containerization, packing, etc. – from source to point of sale [18]. The existence of halal regulation is to enforce the halal compliance to the activity. Halal regulation also refers to the standards, rules, guidance, and laws. All these combinations are created and implemented to prevent abnormal practices or to ensure that the products or services meet the global market requirements and quality [24]. Besides, halal traceability framework for halal food producers is developed based on the initiatives of a halal food company toward halal certification.

According to International Halal Integrity Alliance (IHI) Halal Standard, halal food services are divided into three types of services which are halal restaurant,

halal catering, and halal retail outlet. IHI defines halal food services as the activities of managing procurement, receiving, preparation, storage, and dispensing of food which the food supply chain is complied with the principles of International Food Safety Management Systems and Sharia [25]. The basic of halal compliance in food services is the certification which verifies the operation in the food operators' compliance with the halal requirements. Basically, the process of halal certification is divided into five steps which are (1) application and document approval, (2) premise inspection, (3) panel committee or appeal committee, (4) issuance of halal certification, and (5) monitoring and enforcement [26].

Halal processing starts with filling out an application explaining the production process with specific information about the component ingredients, the products to be certified, and regions in which the products will be sold/marketed [27].

Food is considered as the biggest need of human life. In Islam, it has effects to their followers in selecting the food [28]. Casual dining restaurant is one of the things that facilitate people to dine. But a study reveals that the factors of price, taste, and surrounding are preferred than halal logo and people mostly rely much on the logo of Jabatan Kemajuan Islam Malaysia (JAKIM) – one of the authorized bodies in Malaysia to monitor halal certification [11]. Other study investigated the relationship between halal logo and consumers' confidence in Malaysia and found that the factors that influenced the consumers' confidence toward halal food are (1) confidence on halal logo, (2) food safety and health conscious, (3) government involvement, (4) degree of awareness, (5) trustworthiness, and (6) manufacturing practice. The study found that the consumers react positively on halal logo and are more careful in ingredients listed [29]. But the halal assurance must not be based on halal logo or on its certification only at casual dining restaurant. The handling of material and ingredients is more important before they reach to customers. Thus, this study is carried out to know the view of final consumer on the important criteria of halal food supply chain for halal casual dining restaurant.

23.3   Methodology

A. *Research Design*

This paper is an exploratory research which identifies criteria of importance from consumer perspective. All the criteria have been selected based on literature review. All criteria are scored by a range of a ranking (1 2 3 4 5 6 7 8 9 10) wherein "1" is considered as "very less importance" and "10" as "very high importance." The score of each criterion is calculated through SPSS software to get the sum of score and the central tendency. The findings are discussed through descriptive method. The Cronbach's alpha reliability test is 0.974.

B. Data Collection Method

The questionnaire was personally distributed to 30 Muslim respondents in Shah Alam, Selangor, Malaysia, during the month of September 2013. The sampling method used in this study is purposive sampling where the researcher reaches the sitting customers in the restaurants. The number of respondents is sufficient for use in AHP method because the selected criteria will be based on the highest score. The selection of Shah Alam as location of study is because it has variety of casual dining restaurants and high number of Muslim population. The selected dining restaurants are Restaurant Hakim, Pak Li Kopitiam, Restaurant Khalifah, and Polperro Steakhouse. The method used was face-to-face and self-administered questionnaires. The collected survey questionnaires were analyzed using SPSS software for summation of score and the central tendency using statistical mean. Below is the summary of demographic profiling.

C. Demographic Profiling

From the Table 23.1., 80 % of the respondents are tertiary educated, in the age range between 21 and 25 years old, urban residents, and who fully understand Islamic laws regarding halal and haram for food and drinks. The demographic shows that most of the respondents are matured and reliable enough to score out the halal criteria for casual dining restaurants.

23.4 Findings and Discussion

The findings from the study then have been analyzed to know how far each criteria been scored by respondents. Each item has score based on their role and importance toward halal supply chain. Then all the items are divided into five types of categories or criteria which are certification, practices, resources, logistics, and knowledge. A total of 29 items are provided in the questionnaire. The results of the items are in Table 23.2. below.

Among the items, the highest score is proper preparation with 276 points. The lowest score is certification assistance with 211 points. All criteria obtain a mean score of greater than 7, with two criteria obtaining a mean score of 9. From the result, people are mostly concerned with all the criteria. Two items obtain a mean score of greater than 9 which are proper material segregation and proper food preparation. It shows people are more concerned about the activities which have direct contact with material and food. The proper material segregation and proper food preparation fall into practices in halal compliance.

Table 23.1 Demographic of the respondents

	Frequency	Percentage
Gender		
Male	19	63.3
Female	11	36.7
Age		
19–25	19	63.3
26–30	6	20.0
30–40	1	3.3
41 and above	4	13.3
Education level		
SPM and below	2	6.7
Diploma	3	10.0
Degree	20	66.7
Master and above	5	16.7
Occupation		
Student	12	40.0
Private	8	26.7
Government	5	16.7
Business owner	5	16.7
Income		
Below 1,000	6	20.0
1,001–2,000	7	23.3
2,001–3,000	8	26.7
Above 4,000	7	23.3
Missing	2	6.7
Place of living		
Rural	6	20.0
Urban	24	80.0
As a consumer, which one is related to you?		
I fully understand Islamic laws of halal and haram for food and drinks	23	76.7
I feel that I know enough which foods or drinks are forbidden by Islam	7	23.3

There are 16 items which obtain a mean score of greater than 8 but below than 9. Among the items in practices are proper packaging, ritual cleansing, properly checked by customers, proper slaughter, and proper handling at kitchen. For certification, the items must earn halal label, earn logo enforcement, provide guideline, earn certificate enforcement, earn halal certification, periodically audit, and have premise inspection. For logistics, the items included are proper segregation and storage. For knowledge, the item included is moral obligation. For the resources, the items included are halal ingredients and Muslim staffs.

The other items obtain a mean score of less than 8 but greater than 7. Those are proper handling at warehouse, proper transportation cleansing, designated

Table 23.2 Items scored by respondents

Items	Sum	Mean
Proper material segregation	276	9.20
Proper food preparation	270	9.00
Proper packaging by manufacturer	267	8.90
Earn halal label	266	8.87
Halal ingredients	263	8.77
Moral obligation	263	8.77
Logo enforcement	261	8.70
Ritual cleansing	257	8.57
Provide guideline	256	8.53
Certification enforcement	256	8.53
Proper slaughtering	255	8.50
Muslim staff	255	8.50
Proper segregation at storage	254	8.47
Earn certification	253	8.43
Proper handling at kitchen	253	8.43
Periodically audited	250	8.33
Premise inspection	247	8.23
Properly checked by customers	241	8.03
Proper handling at warehouse	239	7.97
Proper transportation cleansing	239	7.97
Designated area/warehouse	239	7.97
Certification attraction	238	7.93
Operated by Muslims	238	7.93
Preparation checked by customers	233	7.77
Application process	231	7.70
Specialized transportation	227	7.57
Enforce standard	226	7.53
Collaboration	225	7.50
Certification assistance	211	7.03

warehouse, and specialized transportation which fall in logistics. For certification, the items are certification attraction, enforce standard, application process, collaboration, and certification assistance. All the items then are divided into five categories which are certification, practices, resource, logistics, and knowledge.

From the Table 23.3, the most important aspect in the certification is that each dining restaurant operators should earn the halal label. It means that people tend to rely on certification by an authority body to convince them that the restaurant they reach is practicing halal preparation. Importantly, people want an authority body to enforce the halal logo to all operators. In doing so, the authority body should enforce certification and provide guideline to them.

In practices part, people are very concerned about material segregation and food preparation. All the items in the category obtain a mean score of greater than 8. It shows that the people are very concerned on activities that have direct contact with

Table 23.3 The selected criteria

Items	Sum	Mean
Certification		
Earn halal label	266	8.87
Logo enforcement	261	8.70
Provide guideline	256	8.53
Certification enforcement	256	8.53
Earn certification	253	8.43
Periodically audited	250	8.33
Premise inspection	247	8.23
Enforce standard	226	7.53
Collaboration	225	7.50
Certification assistance	211	7.03
Practices		
Proper material segregation	276	9.20
Proper food preparation	270	9.00
Proper packaging by manufacturer	267	8.90
Ritual cleansing	257	8.57
Proper slaughtering	255	8.50
Proper handling at kitchen	253	8.43
Resource		
Halal ingredients	263	8.77
Muslim staff	255	8.50
Operated by Muslims	238	7.93
Logistics		
Proper segregation at storage	254	8.47
Designated area/warehouse	239	7.97
Proper handling at warehouse	239	7.97
Specialized transportation	227	7.57
Proper transportation cleansing	239	7.97
Knowledge		
Moral obligation	263	8.77
Properly checked by customers	241	8.03
Preparation checked by customers	233	7.77

halal material. These include the material segregation, food preparation, packaging, cleansing, slaughtering, and handling at kitchen. For resources part, the items included are halal ingredients and Muslim staff and operated by Muslims. Among them, halal ingredients are the most important aspects in resources. It is expected that halal ingredients would be the most important basic resources in preparation of food in casual dining restaurant.

Besides that, proper segregation at storage becomes the important factor in logistics part. It is clear that segregation should come into the critical factor where it is similar with practices factor which proper material segregation becomes the highest score. Lastly, in knowledge part, moral obligation or religious factor

becomes the most important aspect to consumers in selecting the halal casual dining restaurant. From the result, the certification, resources, practices, logistics, and knowledge will be the criteria toward the halal compliance critical factor in food supply chain in AHP procedure while the items in each of the criteria will be the sub-criteria.

23.5   Conclusion

To date, there is no unifying standard of halal in the world. We can see from the previous seminars wherein many participants rise up the issue to be debated and discussed. From the study, we can see that all the items proposed have been scored by a mean score greater than 7. This study is prepared to establish a model of halal food supply chain hierarchy as guidance for the related halal industry players including policy makers to together cooperate toward the better halal standard. In AHP procedure, each criteria and sub-criteria are prepared to be evaluated in order to establish an AHP model of halal food supply chain. Subsequently, all criteria will be compared using AHP procedure. By using the AHP, the future research will identify critical factor in halal food supply chain. The criteria will highlight the crucial role of the stakeholders such as authority body, manufacturer, logistics provider, operators, consumers, and government as the alternatives to be focused on.

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Chapter 24
Impact of Mindful Consumption (MC) on Investment Decision: A Study Within Malaysian Individual Investors

Ahmad Baihaqi Abd Malek, 'Ismah Osman, Sharifah Faigah Syed Alwi, Ruhaini Muda, and Saadiah Mohamad

Abstract Mindful consumption is considered to be a new wave of consumer behaviour. Moreover, as an increasingly educated and financially sophisticated society, Malaysia has the potential to further the trend of mindful consumption in everyday living while, at the same time, contributing towards sustainable future. This paper was designed to extend the line of discussion between the trends of mindful consumption in Malaysian society according to the mindful consumption model by Sheth et al. (J Acad Mark Sci 39:21–39, 2011). This model was adopted in this study as the guiding principle where mindful consumption is premised on a consumer mindset of caring for self, caring for community and lastly caring for nature that reflect behaviourally into temperance with acquisitive, repetitive and aspirational consumption. Correspondingly, this paper focuses on mindful consumption of investors towards investment decision making. In addition, this allows them to tell their own perspective on how mindful consumption impacted their investment decision-making. It is anticipated that by adopting mindful consumption in this study, the reasons towards investor's investment decision can be identified through their consumption behaviour.

Keywords Mindful consumption • Mindful mindset • Mindful behaviour • Investment decision-making

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24.1 Introduction

Facing a fierce obstacle in creating a sustainable future, mindful consumption today is regarded as the best mechanism or concept in doing so. However, past researcher stated that, even though sustainability is one of the most widely used terms in scientific field as a whole and in environmental science in particular, but the analysis of the evolution of such concept is rather difficult to exercise [2]. It has to be acknowledge that studies on sustainability are often emphasized in the issue of environmental concerns [3, 4], whereas nowadays, sustainability is often adapted for business and organizational goals [5, 6]. Nevertheless, having to deal with obstacle in creating a better future, Malaysians would inevitably have to strive towards sustainable development, and one of the ways is to be mindful in their consumption. Even though extensive research has been done on sustainability in many different settings such as environment, nature, business and organizational perspective, it has yet to be extensively studied in the context of the investment behaviour.

In addition, there is lack of studies that explain mindful consumption on the perspectives of customers, as well as social and economic dimension [1]. As a result, the lack of knowledge of sustainability in the context of the investors necessitates a need for this study to explore the relationship of mindful consumption towards investment decision among investors. This paper examines sustainability from the area that has received far less attention which is the consumer perspective, in this case, investors' decision-making. The subject area of this study is concerned about the relationship of consumption behaviour through mindful consumption by Sheth et al. [1], towards Malaysian investor's investment behaviour. Mindful consumption theory has been chosen in this study where it focuses directly towards the consumers or end users. Through the concept of mindful mindset, it can translate investors' mindful behaviour towards their investment decision. Structurally, this paper is divided into five sections. The first section is the introduction. The second section is the review of the emerging literature on mindful consumption. The third section will bring the focus on the first part of mindful consumption which is mindful mindset followed by the second part of mindful consumption which is mindful behaviour. Section 7.5 explains the pilot study done for this paper. Section 7.6 provides the findings of the pilot study followed by the last section which is discussions and conclusions.

24.2 Mindful Consumption

Generally, the mindful consumption concept by Sheth et al. [1] is divided by two main components, namely, mindful mindset and mindful behaviour. According to Sheth et al. [1], mindful consumption, both mindset and behaviour, is characterized by its core attribute. For mindset, it is a sense of caring about the implications and

consequences of one's consumption, while for mindful behaviour, the core attribute consists of temperance in consumption. Mindful mindset is characterized as a sense of caring for self, caring for community and lastly caring for nature. In this study, three aspects of mindful mindset which are caring for nature, caring for self and caring for community would complement each other and act as a motivator for temperance in consumption trend either repetitive, acquisitive or aspirational consumption.

The multiple effects of this mindset will become a boost towards temperance in consumption trend. Through mindful consumption, it will lead consumers towards consciousness in thought and behaviour about consequences of consumption. In addition, mindful consumption also assumes that consumers are in the position to choose what and how much they consume, which will ultimately guide and shape the behaviour of consumers in consuming sustainability [1]. It is to be believed that mindful consumption, represented by mindful mindset and mindful behaviour, be an important element of the individual's reason to invest, thus will lead towards creating a sustainable future of their own (Fig. 24.1).

Nowadays, consumers need to shift towards mindfulness which is a movement towards exchanged for a more conscious and considered approach of living instead of heedless excess of mindless consumption. People should take the time to reassess as what actually that makes them happy by adopting the mindful thinking on deciding what and whether to buy and thinking harder about the value they are getting for their money. In other scenarios, academicians come out with a concept and theory to encounter the problem of mindless consumption and unsustainable development. One of the concepts, as adopted by researcher, is the concept of mindful consumption.
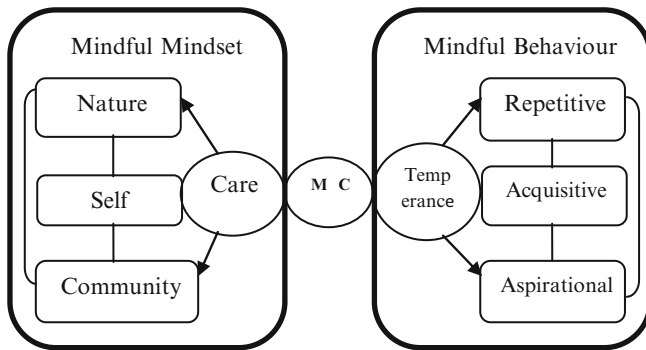
Fig. 24.1   Mindful consumption concept (Source: Sheth et al. [1])

24.3   Mindful Mindset

Mindful mindset serves as a motivator for temperance in consumption trend either repetitive, acquisitive or aspirational consumption. Under mindful mindset, there are three elements which are caring for nature, caring for self and lastly caring for the community. The multiple effects of this mindset will become a boost towards temperance in consumption trend. Past researchers explain mindful thinking or mindful mindset as reflected in three mutually supportive, highly interrelated sets of organizational process which are (a) creation of new categories that expand alternatives, (b) openness to new information and, lastly, (c) awareness of multiple perspectives [7]. However, in this study, researchers will adapt these towards individual investor's investment decision.

A. Caring for the Nature

Past researchers explain that caring for the natural environment can be based on three types of value which are intrinsic, instrumental and aesthetic [8]. Under the intrinsic value, we, as human beings, have an obligation to preserve the environment regardless of any utilitarian concerns that mark the instrumental value orientation. Under instrumental value, the environment acts as a source of natural resources to all of human beings. Instrumental value provides us the motive to conserve the environment so that it remained sustainable towards human beings and thus remains useful to humans. Under aesthetic value, Kilbourne [8] stated that it occupies a middle range between preservationism and conservationism.

Currently, the idea of green consumption is receiving much attention among consumers and even corporate sectors [9]. According to them, big players in the corporate sector such as in the field of automobile, apparel, food, furniture and housing are steadily making interest towards environmental sustainability. However, Bonini and Oppenheim [9] further stated that despite the fact that consumers in many surveys express their strong pro-environment sentiments and preference of the green products, the level of green consumption remains too small to be able to be translated into a meaningful environmental sustainability.

B. Caring for Self

According to Sheth et al. [1], caring for oneself is not about being selfish or self-centred but is about paying heed to one's economic well-being. There are two main aspects of personal well-being; firstly eudemonic which is related to happiness and secondly, the aspect in which individuals are caring for themselves. Frank [10] in his study stated that greater happiness does not come from spending increased

income on conspicuous consumption, such as buying a larger house or a more expensive car. This is contradictory from a research from Belk [11] which believes that happiness derives from possessions, indicating a high importance attached to material possession which leads to materialism.

On the economic factor, according to Borgmann [12], vigorous and growing consumption is the lead indicator of a prosperous and self-confident community. However, Schor [13] explains that overconsumption is frequently associated with spending that is more than what is fiscally prudent, which will lead to self-defeating. In addition, Schor [13] stated that, from the economic well-being perspective, overconsumption is often associated with overspending, resulting in financial stress.

Repetitive consumption consists of the process of buying, the aspect of caring for oneself, which is an economic factor that ultimately will lead towards investor's investment decision. Therefore, caring towards self is important as it will lead towards oneself's sustainability in the economic factor from the investment decision made.

C. Caring for the Community

Belk [14] stated that overconsumption detracts from caring for the community in three ways. Firstly, a high degree of materialism associated with overconsumption leads to a neglect or undervaluing of human relationship. Secondly, overconsumption becomes harmful for society because it exacerbates environmental degradation. Finally, excess in private consumption negatively affects society due to a concomitant decline in support for public goods and services. Whybrow [15] added that most people find happiness in a social context such as the relationship they have with others.

24.4 Mindful Behaviour

A mindful thinking will lead towards a sustainable behaviour. In the previous study, Langer [16] in her book *Mindfulness* examines mindfulness in opposition to mindlessness. Furthermore, Bell [17] connotes that people need to be aware of the many social realities that exist beyond our own self-centredness, and given the changing nature of societies and cultures, to be mindful is to be alert to the urgency of being present at the moment and being cautious about what we take for granted.

In other words, inability to control consumption can be related to the concept of "materialism". Materialism is defined as the importance a person attaches to material possessions and the belief that certain possessions are the primary source of happiness [14]. In this study, as adopted from previous researchers [1],

temperance was used as a central theme in order to eliminate our own self-centredness as said by Bell [17]. Temperance on acquisitive, repetitive and aspirational consumption is the main theme in mindful behaviour. In this study, mindful behaviour will be further discussed according to the three dimensions of temperance which are towards acquisitive, repetitive and aspirational consumption.

A. Acquisitive Consumption

Excessive consumption appears in the most basic form which involves acquiring things at a scale that exceeds one's needs. This is further supported by Boudrillard [18] which stated that, historically, societies have consumed beyond their needs as a means to feel they are not merely existing but truly living. In the waning era of hyper-consumerism, one of the most constant sources of pleasure was the instant gratification that accompanied from purchases although it involves an act spending things at a scale that exceeds one's needs [19]. In addition, Csikszentmihalyi [20] stated that consumption has its problems especially when the consumption itself is harmful towards the environment, exploiting other people and bringing burden to themselves such as debt and bankruptcy.

B. Repetitive Consumption

Repetitive consumption can be stated as discarding and buying again in other occasion. One of the main reasons of repetitive consumption is that some things are meant to be disposed after usage and purchased repeatedly [21]. Some of the repetitive consumption material products are diapers, disposable razors, paper napkins and many more. However, there is another type of repetitive consumption products that is not biodegradable and ultimately will end up as a huge amount of harmful waste around the world. These things include disposable plastic water bottle and plastic utensils.

According to [22], the main appeal for this kind of products is convenience and time savings, as well as its nature of low cost. Another variation of repetitive consumption with more serious sustainability implications is when products are discarded because of their obsolescence [23]. According to him, obsolescence can be technological, as in common with computers and many other more electrical goods. Consequently, repetitive consumption may lead to fashion obsolescence due to cost-efficient substitutes [24]. This term (fashion obsolescence) appears when a customer finds new substitutes more desirable and attractive. This often happens in the industry of apparel, appliances, cars, cell phones and many other fashion and luxury goods.

Sheth et al. [1] explain that in the sustainability perspective, the main problem that arises is that commonly users discard functionally sound product for

replacements that offer only slight performance improvements and minor cosmetic-stylistic changes. Furthermore, Heiskanen [25] describes this type of consumption as "discretionary replacement" in which consumers do not seem to be guided by rational cost-benefit consideration rather than guided by mindless consumption alone.

C. Aspirational Consumption

Aspirational consumption is regarded as the most widely and easily recognized form of consumption. Aspirational consumption is commonly associated with the idea of conspicuous consumption. The first idea was brought back to the age of 1899, where Veblen [26] noted that:

> such consumption mainly among the super rich, and saw competition as its main driver. Now, competitive consumption is often seen in a related, but more subtle variation of aspiration-driven consumption, and it is no longer limited to those at the top of the income pyramid

24.5   The Study

A total of 10 in-depth interviews were conducted which involved individual investors who are currently active on investing in investment especially in Amanah Saham Bumiputera (ASB), Amanah Saham Nasional (ASN) and other major mutual funds. To gain a detailed view of participants' perspectives related towards their investment decision experiences, researchers conducted individual interviews with each lasting half an hour. These interviews were semi-structured and audio recorded. The semi-structured questions will be used in the interviews that involve prepared questioning in a consistent and systematic manner interposed with probes designed to elicit more elaborate responses.

In-depth interviewing is relevant in this study as researchers can gain in-depth understanding, thoughts and behaviours regarding the relationship of mindful consumption trend towards investment decision thoroughly through the interview conducted, thus offering a more complete picture of what actually happened and why. After the interviews, data collected through voice recording will be transcribed and transferred from spoken to written word to facilitate analysis. Furthermore, the research also focused on interview with a diverse sample of people with possible balance of background including gender, age, groups, income and occupation (Table 24.1).

In order to capture investor's mindful consumption towards their investment decision, data analysis consists of a three-phase procedure as adopted from Miles and Huberman [27] which includes (a) data reduction, (b) data display and, lastly, (c) conclusion drawing and verification. Furthermore, in order to capture mindful

Table 24.1 Participants

Participant	Age	Profession	Income/month RM
A	30	Engineer	5,000
B	28	Banker	2,500
C	40	Teacher	3,000
D	37	Government servant	3,500
E	35	Businessman	5,000
F	43	Government servant	3,500
G	29	Businessman	3,000
H	27	Banker	2,000
I	50	Businessman	8,000
J	26	Marketing exec	3,000

consumption through mindful mindset and mindful behaviour towards investment decision, multiple readings and documentation of recurring patterns were done.

24.6   Findings

In expressing investor's mindful consumption practices in order to invest, three major themes emerged:

A. *Caring for self-future economic well-being*
B. *Temperance on acquisitive consumption*
C. *Temperance on aspirational consumption*

A. Theme One: Caring for Self-Future Economic Well-Being

In this theme, we find caring for self practiced by informants where informants are in the process of situating their economic or financial position in a better position. This is in accordance with Sheth et al. [1] where former researchers stated that caring for oneself is not about being selfish or self-centred, but it is about paying heed to one's economic well-being. Each of the informants offers a clear picture where they are paying attention to their economic well-being by participating in an investment. Participant A, an engineer who lives in Shah Alam, has been active in an investment for over 5 years:

Participant A: Ok, the reason why I'm active in investment because of I am thinking about the future. We might not know what will happen in the future. We might not even be here tomorrow. Ermmm.. Investment is the way for me to stay away from spending excessively. I need to strengthen my finance capability so in the future,

I might acquire property like house, or land. If I'm not investing, I might uses or spend all the money I got. For me. I think it's a waste to do something like that.

The excerpt above shows the importance of future economic well-being of Participant A. Similarly, while Participant D describes the main objectives of the investment made, Participant D links the cause of the investment made mainly towards the assurance of future economic well-being:

Participant D: Well, for me, I think most of people invest, thinking about their future and their family. As a head of the family, it is my responsibility to provide for my family. I need a stable monthly income, enough savings and investment for my kids for the future needs. Nowadays, with the price of daily groceries, bills and utilities increases, most people I think would do the same. I do this so that when my kids grow up, I'll probably will be needing a lot of money. I think college fee would be more expensive than ever, transportation, there is actually a lot if you think of it. Better start now.

From the excerpt above, as important as caring for self-future economic well-being, for Participant D, these issues share other aspects such as acting as a head of the family, a provider and, most importantly, a financially responsible man. These issues were similarly shared by Participant F where responsibility plays a major role in this emerged theme:

Participant F: Hurm, firstly, the reason I invest is of course because the future of me, my wife and my kids. Well, I hope by the time my investment reach 15 to 20 years, I might be able to buy a proper house for my family to lived in, acquire some property or land, and to be able to bequeath some of my asset to my son, grandson and so on. Hurm, as you know, nowadays, buying a house is a nightmare due to the hiking price. If I don't do this now, then the future of my kids will be hanging in balance. I think it is my duty, my obligations to do so.

In highlighting the theme of caring for self-economic or financial well-being, participants position themselves as a responsible person in which it is their duty and obligations to think about their own and family future. As discussed, there are as well as other aspects such as being the head of the family and the need to care for the future financial well-being that seem to be more important. Participants A, D and F and other participants' reference to their investment decision lends weight to the position that caring for self-economic well-being is the most important aspect in mindful mindset towards their investment decision-making.

B. Theme Two: Temperance on Acquisitive Consumption

While some people are conscious about their spending, some care about their self-pleasure and gratification. One of the most contributing factors towards overconsumption, according to Gabungan Persatuan-Persatuan Pengguna-

Pengguna Malaysia (FOMCA), is that most advertising was aimed at promoting high-end lifestyles, and this situation creates peer pressure on young people to buy things just so they would appear up to date and trendy. Furthermore, most individuals especially the youth buy items for their image instead of the item's functionality. In addition, FOMCA recently conducted a survey on young Malaysian workers' financial behaviour and habits. Preliminary findings revealed that more than 60 % were in debt, totalling about 15 % of their income. We see in the excerpt below that Participant A emphasizes that in the expense of self-pleasure and instant gratification, Participant A was able to participate in investment opportunities:

Participant A: Oh well, to be able to join as many investment as I like, I have to forget about trading my car, with a new one that I really like. Actually, this is my first car I bought since 5 years ago. Hurm, another example, let me see. Okay, it will be my mobile phones, which I bought nearly 3 years ago. I think this phone still serve me well, so no need to change for a new one. I believe there are other few little thing that I had sacrifice for example shopping. Anything else, erm owh, and travelling in order to save for the investment I made.

The excerpt above shows the situation where to be able to invest accordingly, Participant A had to forget about self-pleasure in acquiring a new car and mobile phones, shopping and travelling. These issues were also shared by Participant B wherein Participant B had to let go of these kinds of acquisitive consumption in order to be able to invest accordingly:

Participant B: Ermmm, okay, in the beginning of my investment experience, in the beginning of my investment, I had to allocate a certain proportion of my monthly income for the purpose of the investment at that time. Currently, I have to allocate around RM 500 monthly to pay for the investment. As a result, I am not able to spend on my computers anymore. To be honest, I am a sort of a computer geeks. If there are a certain kind of new model launches, for example like graphic card, a new processor lines, accessories and games, I am almost definitely will buy it. So that is one of the implications that I think effect the most because of my investment made. Do I regret it? Hurmmm.. Let me see.. Maybe a little but I think technology changes every time, my computer now I think will not become obsolete in 4 to 5 years time. As long as it is usable and serve me well, I think it's enough.

For Participant B, self-pleasure comes second in order to be able to invest. Rather than wasting money chasing technological pleasure in computers, Participant B allows himself to participate in investment. That is the decision he chooses in order to be able to invest. For Participant C, temperance on acquisitive consumption shows when Participant C must plan her monthly expenses carefully to be able to invest:

Participant C: Okay, well personally I am a very careful person to spend. Each of every month, I ermmm spend just enough to be able to make my investment payment. Hurmmm.. I rarely goes to expensive restaurant, I barely have any

expensive signature clothing. Owh well, the one I have, I bought it from a bundle store. For me, I should spend wisely, I got my bills to pay, I don't want to be in much of debt. I am that kind of person. I often pays for anything I buy by cash, other than my car.

In the emergence of temperance on acquisitive consumption as a theme, we believed that Participants A, B and C and other participants shared the same situation where they were able to avoid the temptation of self-pleasure and gratification in order to be able to participate in their investment. In the expense of food consumption, gadgetry and other personal-related items, each of the participants does sacrifice something in order to be active in their own investment.

C. Theme Three: Temperance on Aspirational Consumption

One of the most basic methods of aspirational consumption by Malaysians is commonly seen in the activities of buying a luxury item for the purpose of competition among peers and relatives. Among the examples shown from the participant are luxury cars, signature clothing and expensive vacations. As illustrated in the excerpt below, Participant B, a banker, who just got married, just spend their vacations locally without allotting a serious budget:

Participant B: Hurm, personally, me myself is not much of a big spender. I just bought what I need and what I will put a good use of it. Owh, however, sometimes there is temptation for example, I want to bring my wife for a honeymoon at a big and beautiful city like London, Venice or Paris, at least not locally. Actually, ermmm, my real intention is, I want my wife and her family to feel happy and appreciated. Other reason is to show that I am capable for such a vacation. However, after a long discussion, me and my wife prefer to save up and invest the money instead and plan for acquiring house for us in the future. I think it's the best since we are just married and got a long time ahead of us to those travelling.

This excerpt shows that mindful consumption effects on the investment decision of Participant B and added to the benefit that they will be able to spend their money efficiently on property such as houses in the future rather than mere week vacations. For Participant E, even though there is money to spend for consumption, Participant E chooses not to and searches for more investment opportunity instead:

Participant E: Ermmm.. Okay, for this question, I think I am able financially to eat in expensive restaurant, buy branded clothing, a good car. Currently, with all my investment, I think it will be more appropriate to spend the money elsewhere. Ermmm.. okay for example, I can definitely save it, or make some more investment if there is more opportunity . After all, money makes money, not those item.

The emergence of temperance on aspirational consumption can be found among few respondents that were interviewed, compared to the idea of conspicuous consumption. Belk [11] in his study stated that greater happiness does not come from spending increased income on conspicuous consumption, such as buying a larger house or a more expensive car.

24.7 Discussions and Conclusions

This study shows that caring for self, temperance on acquisitive consumption and temperance on aspirational consumption emerged as themes of the paper. The first theme which evolved from this study is caring for self-economic well-being, in which it shows the importance of investment. However, under mindful mindset, only caring for self appears to be the emerging theme, while caring for the nature and the community did not come out as a regular trend between the participants. Caring for self can be understood as an act of mindful mindset that the investor's practice leads towards temperance of their consumption.

The second theme, namely, temperance on acquisitive consumption, shows in the expense of self-pleasure and gratification, almost all informants are willing to sacrifice their self-satisfaction of acquiring certain unnecessary things just to be able to invest. This theme shows that informants are willing to justify on what they need rather than what they want accordingly. This leads towards moderation in spending on food consumption and personal belongings such as clothing and gadgetry.

The last emerging theme is temperance on aspirational consumption. This theme shows that informants are willing to sacrifice their conspicuous consumption that will lead towards self-image due to competitiveness among peers, co-workers and relatives. This ultimately leads towards temperance in consumption of luxury items such as luxury cars, signature clothing and expensive vacations. In conclusion, caring for self acts as a boost towards temperance on acquisitive and aspirational consumption that will ultimately lead towards their investment decision.

Lastly, in terms of future research, other research directions can be examined. This can be determined through the different categories of investment that are made available to the public. Different types of investment criteria and portfolio would be able to offer a valuable connection to establish themes with other mindful consumption aspects that did not emerge as a theme in this paper such as caring for the nature and community.

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Chapter 25
PADI Model: The Role of Malaysian's Emotional Experience on National Car

Wan Nadiah Mohd Nadzri, Rosidah Musa, and Md Nasarudin Hussin

Abstract The automotive industry has become more dynamic as practitioners react promptly toward consumer's preference in cars. In particular, car producers introduce an abundance of car models to avoid customer attrition. Numerous studies have shown that consumer emotion plays a vital role in purchasing, evaluation, and decision-making. Thus, this study helps to unravel the emotional experience of consumers that can influence purchasing and suggest the importance of empirical testing. Scholars and practitioners need to investigate reliable marketing tools suitable to evoke positive consumer effects. The pleasure-arousal-dominance (PAD) theory and intelligence were used in this study to examine the effects of stimulus complexity on consumers' purchasing behavior. A total of 160 Malaysian urban young adults participated in the pilot test. The questionnaire included items measuring the PADI scale using a seven-point Likert scale. This study collates and identifies positive stimuli that include pleasure, arousal, dominance, intelligence, and negative stimuli. It is learned that respondents prefer talking about their negative emotional experience as compared to positive emotion. To further test the robustness of this study, future research might replicate this study and examine into customer's emotional scale. The researcher is encouraged to overt future consumer's negative emotion more specifically into account. Indeed, practitioners must overcome the consumer's negative emotions in efforts to overcome the churn phenomenon.

Keywords Emotional experience • PAD theory • Intelligent

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25.1 Introduction

The global automotive market continuously expands their growth, driven particularly by consumer demand. Car market development is primarily generated from consumers that need to replace their cars and are purchasing for the first time. In favor of global demand, worldwide production is expected to expand especially in developing Asian countries. Having a keen understanding of the automotive market, consumers are in control of their purchasing decision and expectation with regard to car features and value. The global automotive industry witnessed an evolution based on consumer's paradigm shifts in car experience. Consumer's insatiable appetites for high-technology cars force automotive producers to create new ideas and advanced car functionalities. Nowadays, consumers have high interest in hybrid models due to affordable prices and fuel consumption efficiency. Thus, car producers are committed to expand this segment further. More importantly, Malaysian car producers need to be agile and adaptive in the competitive global market.

Malaysia's automotive industry is dominated by few local automotive producers and foreign automotive producers aggressively promoting a variety of models to capture Malaysian consumers. The oligopolistic nature in the automotive industry has caused difficulties to the national car producers as intense competition arises to sustain in the market. The Malaysian government acknowledged the importance of brand building in the global market and thus developed guidelines for domestic companies on practices and supportive programs that enhance national brand. Despite certain issues that arise, the growing urbanization and environmental challenges have radically revolutionized the Malaysian consumer behavior on purchasing cars. With the heightened burden of fuel prices, consumers are exploring alternatives such as biodiesel or fuel cells in reducing pollution that contributed to global warming. It is the national automotive player's responsibility to produce more innovative car models to capture the Malaysian market before liberalization of Malaysian automotive industry comes into action by 2016.

Malaysian car buyers usually depend on extrinsic cues before purchasing cars. Responding to the above statement, previous scholars argued that consumers highly depend on cues such as brand name, price, salesman reputation, and advertising [1]. This cue creates a feeling (experience) and an influence on consumers to respond to certain behavior. Malaysian consumers often depend on the above stimuli when purchasing a product. Brand-related stimuli influence purchasing decision of a car especially when they have no past experience to rely on. Consumers who are well experienced with a certain car brand may rely on trust and loyalty for repeat purchase [2]. Car consumers are highly involved with the purchasing process [3] as they gather information through grapevine or experiences.

Indeed, practitioners acknowledge the impact of emotional experience toward branding. Consumers rely much on their emotion and experience when dealing with daily transaction activity. The focal point of branding is creating a uniquely

memorable experience to consumers that deliberately influence emotion, yet still there is scare in empirical studies as stated by scholars such as Hirschman and Holbrook [4]. Brakus et al. [5] affirm that delivering excellent emotional experience provides a differentiation platform from other brands and fosters brand loyalty. The said evidence has intrigued scholars such as Russell and Mehrabian [6] to develop the pleasure-arousal-dominance (PAD) theory. This theory examines the environmental stimuli that influence the emotional state of consumers (experience) that leads to action. Besides the PAD theory, there are even more frameworks and methods in examining experience [7–10]. This proves that emotional experience excites academicians to investigate the rationality and judgment of consumer decision-making.

25.2 Literature Review

A. *Emotion*

Emotions play a vital role in human behavior. A series of intense emotions that correspond to an event are investigated which result in the reaction of an individual. This allegation is supported by Zeelenberg and Pieters [11] and Derbaix and Vanhamme [12] that consumption emotions directly influence human responses. Signals caused by environmental stimuli are able to raise emotions such as positive feelings (love, happiness, arousal, etc.) and negative feelings (fear, evilness, anger, etc.). However, consumer's favorable or unfavorable emotional response that increases or decreases satisfaction level may result in future behavior [13]. Existing studies such as Prayag et al. [14] unravel emotion as the antecedents of satisfaction and behavioral intentions. Many research studies on consumption emotion have been conducted such as Han and Jeong [13], Holbrook and Batra [15], Plutchik et al. [16], Izard [17], and Russell and Mehrabian [6], and the measurements are still questionable in terms of the structural content of emotion [18]. Numerous researchers such as Plutchik et al. [16] introduced the differential emotion scale (DES), and Izard [17] constructs the emotion profile index (EPI) that has been extensively used in the academic industry. While these measurements are being adapted, the effectiveness of the structured scale is still vague. The adequateness of emotional scale varies based on different types of product or services. Most studies measure particularly in advertising [19]. Attempting to enhance the scale, Russell and Mehrabian [6] developed the pleasure-arousal-dominance (PAD) scale that investigates affective emotion toward their physical surroundings. The PAD scale captures emotions such as pleasure (happiness, pleased, proud), arousal (frenzied, excited, wide-awake), and dominance (controlling, influential, in control). While the relevancy of the PAD scale is being adapted, some of the emotions are still missing and unlikely to assess overall consumption-based emotion. The importance of investigating emotion is visible as it influences consumer's post-purchase

decision-making process. An extensive literature by Han and Jeong [13] and Han et al. [20] examined that consumption emotions have an impact on post-purchase behavioral intentions. Findings showed that consumer's favorable or unfavorable responses will influence satisfaction and affect the loyalty toward product or services. Consumer's loyalty is one of the key components in creating a quality relationship. The critical role of satisfaction and loyalty has been well addressed in most literatures as it contributes toward consumer's behavioral intention. It is said that emotions are associated with psychological arousal, reaction behavior, and conscious experience. A new set of emotions is needed to investigate the holistic range of emotional experiences regardless of different industries. The urgency to investigate emotional experience is significant and must be enlarged.

B. Emotional Experience

Emotional experience is defined as a personal experience that contributes toward the holistic perception of a product or service. Prior to positive experience, consumers gain interest and trust and remain faithful to a certain brand. It is proclaimed that experience significantly influences satisfaction, faithfulness, and attitude elements through brand personality [21]. Emotional experience is manifested from consumer's experiences and consumption. It enables them to amplify the consumer's sense of experience which resulting towards attachment of a brand. Our national car producers are focusing their utmost efforts in creating value toward the consumer's experience. Pine1 II [8] states that individuals greatly appreciate experience as it makes memorable and lasting satisfaction. Carù and Cova [22] affirm that "emotional experience or emotion is often cited as the heart of the consumption experience"; inherently, emotional experience plays a vital role toward individual behavioral intention. Numerous literatures [13, 23, 24] admit that consumption emotions affect a company's succession position in the market whereby consumer's favorable or unfavorable experiences influence decision-making and loyalty formation. Han and Jeong [13] suggested urgency to enhance the existing emotional experience scale as it provides accurate consumption emotions. Needless to say, emotional experiences are gaining most of the attention in the eyes of marketers. Yet, there is still scare in the precise definition of concept and empirical research as many researchers have strongly addressed the absence in the empirical support [25, 26]. Indeed, practitioners acknowledge the impact of emotional experience toward branding. Consumers rely much on their experience when dealing with daily transaction activity. The focal point of emotional experience is creating a uniquely memorable experience to consumers that deliberately influence emotion, yet still there is scare in empirical studies as stated by scholars such as Hirschman [4]. Brakus et al. [5] clarified that delivering excellent brand experience provides a differentiation platform from other brands and fosters brand loyalty.

With reference to the study, the researcher integrates the existing brand experience dimension using the pleasure-arousal-dominance (PAD) theory by Russell and

Mehrabian [6] and Schmitt et al. [21] as guideline for this study. The PAD theory refers to consumer's emotion and intrinsic feelings toward a brand. Remarkable scholars such as Russell and Mehrabian [6] and Verhoef et al. [26] have proven that environment has an impact on consumer's behavior. The environmental stimuli have significantly influenced consumer's response to react and feel in the physical environment. Previous studies have tremendously proven that consumer's behavior is influenced by an emotional response toward a certain environment. As supported by Namasivayam and Mattila [27], they reckoned that stimulus-evoked emotional state in turn affects the response of consumers whether to accept or avoid a situation. The elements of stimuli are defined as physical cues (ambient, store layout, staff) that have directly evoked emotional states (pleasure, arousal, and dominance). This theory by [6] has become the most influential models highlighted on the experience of humans in varies setting environments. There are still limitations (using the PAD theory) in investigating experiences relative to the brand theory.

The PAD model proposed by Russell and Mehrabian [6] integrates three (3) independent emotions (pleasure, arousal, dominance). Mainly, empirical studies often highlighted the pleasure and arousal dimension thus eliminating dominance [28, 29]. Generally, most researchers avoid including the dominance scale as it is insignificant [30]. However, in this study the researcher opts to include dominance (D) as it requires consumers to have control over their decision-making. Another dimension which is intelligence (I) plays a vital role in measuring experience as studied by scholars such as Mohamed et al. [31] and Teh [32]. Intelligence acts as a primary tool in collecting and analyzing insightful information to retrieve rational decisions. It is essential to expand the PAD theory by inculcating intelligence (I) as researchers need to understand the issues related to the consumer's experience dimension and scale when dealing with brand trust and brand resonance. This study by [21] emphasis on consumers creative thinking such as intelligence (I) in reproducing things in a different way. Indeed, scholars need to further investigate in the realm of automotive industry.

25.3   Methodology

A. Sample Size

This study employs Proton and Perodua young urban adult car users between 18 and 29 years old with a minimum of 1-year car usage from Klang Valley. The researcher aims to investigate young adults or millennial behavior as they are the largest group in comparison to baby boomers or Generation X. Millennial consumers are expected to have full ownership on their job responsibilities and purchasing power. It is essential for practitioners and academicians to delve into their spending behavior and how they use social media as their connectivity to the

boundless world. Millennial have high creativity and enthusiasm about technology as they are growing up with social media. Howe and Strauss [33] clarify that millennial consumers are very demanding and seek for customization to achieve satisfaction in products or services. Besides that, social media plays an important role in decision-making as they seek information and share product knowledge among themselves. Undeniably, social media helps value in assisting millennial on decision-making as about what, where, and when to purchase the products [34]. Therefore, it is significant to inculcate young adults as respondents for data collection, accordingly.

B. Focus Group

A focus group is an instrument for researchers in obtaining valid information from the community especially consumers of Proton and Perodua. In alignment with the research objective, the said tool is essential in understanding the consumer's preference and respondent's emotion and experience using their current national car. These qualitative techniques are focusing on two small groups on predetermined topics and continuous discussion for 1.5 h per group. Krueger [35] suggested focusing on 6–12 respondents for effective interaction. A group of people briefly discussed on a particular topic that encourages respondents to provide their ideas, experience, and criticism. Besides that, it is the best tool in "filling in the gaps" on the current study and generates new approach and hypotheses.

The focus group is targeted to Proton and Perodua urban young adult car users with a minimum of one (1)-year car usage. The session shall encourage respondents to freely speak in order to explore their emotions on their selected national car. A moderator presents pictures of different car models and logos to excavate the experience, feelings, and preference of respondents. Respondents shall describe and share their strong experience or weak experience in an open-ended response communication. They were asked to share their own emotional experience on brand-related stimuli. A special meeting room with adequate seating is required in the interview and the whole session will be recorded and transcribed. The moderator will conduct two (2) sessions that comprise of ten (10) panels; thus, a total of twenty (20) panels shall participate. Later, the findings from the focus group will be used in developing the questionnaires for pilot study.

C. Pilot Study

Before the actual survey is being distributed to the respondents, it must be pretested in making sure suitable questions are asked and creating the best questions that meet the objective of the study. It is said that pilot testing helps the researcher to identify difficult questions that are hard to understand and interpreted differently by

the respondents [36]. The survey was distributed to new 160 urban young adult national car users from Klang Valley. Smith and Albaum [37] state that the rule of thumb of pilot testing is between adequate ranges of 30 and 100 samples. However, self-administrated survey is chosen in this study to obtain information from a population. This technique is reliable and cost-efficient. Sekaran [38] pointed out that the benefits of the said technique are the data that can be collected at a short period of time from a large number of individuals [38].

Firstly, the listings of strong and weak experiences are documented from the focus group done previously. The listed emotional experiences were carefully selected and its suitability verified for this study. Secondly, through extensive literature review, emotional experience items were selected based on affective and sensory adjectives [6], intelligent adjectives [21], and findings from the focus group discussion. This survey comprises four proposed dimensions and all items were screened by experts for reliability purposes (see Table 25.1). Each respondent presented with situation and was asked to describe their feelings using the given 89 adjectives. In describing which emotion adjectives suitable for each respondent, a seven-point scale consisting of 1 = "not all descriptive," 2 = "not descriptive," 3 = "not descriptive somewhat," 4 = "undecided," 5 = "descriptive somewhat," 6 = "descriptive," and 7 = "extremely descriptive." The development of the survey is being adapted and modified using [6] method.

The constructed emotion adjectives refer to pleasure (23 items), arousal (30 items), dominance (16 items), and intelligence (20 items). Some of the adjectives were reworded in creating consistency that implied emotional experience. The researcher prepared two different language versions such as English and Bahasa Malaysia. As suggested by [47] deletion of a sample must be conducted if 10 % of respondent fails to rate. Thus, eight samples were deleted, accordingly. A series of analysis was being conducted by SPSS software such as descriptive and factor analysis using varimax rotation.

25.4   Data Analysis and Result

A. Content Validity

In total, there are 51 items remained and segregated into four dimensions such as pleasure (17 items), arousal (6 items), dominance (4 items), intelligence (5 items), and negative emotion (19 items). Based on the results shown, the measurement used by Russell and Mehrabian [6] and Schmitt et al. [21] has contributed toward positive emotions (pleasure, arousal, dominance, and intelligence) and negative dimension. The results shown are similar to [39] that highlight positive and negative emotions in measuring student service quality. Pioneer researcher by [40] was the first to introduce PANAS using adjectives such as PA (positive) and NA (negative).

Table 25.1 Listing of emotion adjectives

Emotion adjectives		
Unhappy	Unaroused	Aggressive
Annoyed	Ordinary	Superior
Unsatisfied	Shy	Strong
Depressed	Unsophisticated	Smart
Despair	Unattractive	Savvy
Bored	Controlled	Memorable
Regretful	Influenced	Stimulated
Sickening	Cared for	Wide-awake
Miserable	Awed	Interesting
Calm	Submissive	Appealing
Hateful	Guided	Impressive
Unexcited	Powerless	Affective
Sluggish	Slow	Emotional
Dull	Inferior	Sentimental
Uncomfortable	Weak	Thinking
Happy	Dumb	Unintelligent
Pleased	Unskilled	Intellectually not stimulating
Satisfied	Unmemorable	Uninterested
Contented	Aroused	Deceitful
Hopeful	Unique	Rational
Relaxed	Bold	Incompetent
Proud	Sophisticated	Non-problem solving
Awesome	Attractive	Intelligent
Ecstatic	Controlling	Intellectually stimulating
Enthusiastic	Influential	Curious
Likeable	In control	Trustworthy
Excited	Important	Analytical
Frenzied	Dominant	Competent
Jittery	Autonomous	Problem solving
Comfortable	Powerful	Aggressive

B. Reliability

A total of 152 valid surveys were used for analysis purposes. Most of the respondents were male (81 %) compared to female (71 %). It is suggested that the purification of all instruments starts with Cronbach's alpha, and with reference to this study, Cronbach's alpha was computed (see Table 25.2). The value of Cronbach's alpha ranged between 0.894 and 0.959. In order to improved reliability value, 36 items were deleted. Upon deletion, the survey comprises 53 items with 4 dimensions.

Table 25.2 Exploratory factor analysis

	Items	Loadings	Cronbach's alpha
Pleasure	Ecstatic	0.795	0.959
	Excited	0.788	
	Awesome	0.784	
	Satisfied	0.768	
	Enthusiastic	0.756	
	Relaxed	0.739	
	Proud	0.725	
	Pleased	0.723	
	Happy	0.718	
	Sophisticated	0.694	
	Attractive	0.691	
	Comfortable	0.678	
	Likeable	0.657	
	Bold	0.629	
	Awed	0.621	
	Frenzied	0.607	
	Unique	0.533	
Arousal	Stimulated	0.784	0.894
	Interesting	0.736	
	Wide-awake	0.701	
	Affective	0.659	
	Powerful	0.609	
	Autonomous	0.537	
Dominance	In control	0.746	0.875
	Important	0.736	
	Influential	0.725	
	Controlling	0.679	
Intellectual	Analytical	0.794	0.851
	Problem solving	0.779	
	Trustworthy	0.747	
	Curious	0.669	
	Intellectually stimulating	0.613	
Negative	Annoyed	0.816	0.946
	Unsatisfied	0.788	
	Depressed	0.787	
	Unexcited	0.774	
	Sluggish	0.763	
	Dull	0.751	
	Miserable	0.739	
	Sickening	0.712	
	Regretful	0.702	
	Bored	0.69	

Table 25.2 (continued)

	Items	Loadings	Cronbach's alpha
	Unhappy	0.674	
	Unaroused	0.626	
	Unsophisticated	0.596	
	Unattractive	0.589	
	Hateful	0.577	
	Intellectually not stimulating	0.775	
	Deceitful	0.754	
	Uninterested	0.752	
	Unintelligent	0.747	

C. Construct Validity

Exploratory factor analysis (EFA) was performed using varimax rotation and principal component analysis. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.897. Reference to Hair et al. [41] affirms that 0.80 was considered appropriate for factor analysis. The Bartlett's test of sphericity showed significance.

25.5 Conclusion

Although the PADI scale was used in this study, results have shown that there are positive and negative emotions similar to a study conducted by Thompson [42] that emphasizes on the PANAS scale. However, he suggested future researchers to develop the said scale as it has many flaws in empirical research. The PANAS whom originally generated by Watson [40] was an extension work of Russell and Mehrabian [6]. Thus, it is no surprise that both works have similar results. Future researchers need to explore more emotional experience in the realm of automotive industry. Indeed, the feedback of consumers on cars is often emotional and insentient. Marketers must reduce negative emotions understanding consumer's experience in a diverse geographical context. Consumers are influenced by their emotions and experience in their purchasing decision as they have high product involvement. Evidently, the PADI scale requires more in depth investigation and extensive comparison needed of much existing studies. It is suggested that this study can be analyzed using structural equation modeling (SEM) for rigorous data analysis. Researchers are encouraged to overt future consumer's negative emotion more specifically into account. Indeed, practitioners must overcome the consumer's negative emotions in efforts to overcome the churn phenomenon. The emerging studies on emotional experience evoked most scholars to explore more in a service-dominated industry. Consumers highly indulge on cars provide meaningful

emotional experience that impacts their relationship with a brand. Hence, this study explores the association of emotion and experience by inculcating PADI measurement thus helping practitioners distinguish the consumer's consumption state. As a result, practitioners perceived that behavior intention in developing marketing strategies caters to the emotional performance of a consumer. Managerial strategies are needed in delivering unquestionable experience to consumers. It is also suggested by Teh [32] and Tocquer [43] that studies are essential in different service sectors. The researcher reckons that the automotive industry is a suitable platform understanding consumer's product involvement stimulated by the emotional experience dimension. Indeed, the interaction of experience and emotion is part of the experience learning process as it often portrays the individual involvement toward a brand.

The Malaysian automotive industry is struggling to provide a unique and distinctive experience to the consumers. Automotive producers face hurdles to retain consumer's repeat purchase within the same automotive brand when it comes to replacing their cars [44]. Emotional experience enables to amplify the sense of experience as consumers are strongly attached to a brand. The said variable directly points out brand loyalty in turn to boost the value of a certain brand. Undeniably, brand loyalty is essential especially within the durable goods industry as stated by [2]. It is said that stimulation of loyalty creates element of emotion throughout engagement, persuasion, and consistency [45,46]. The importance of consumer experience has been proven to rejoice the consumer's emotional feelings toward loyalty [25]. Indeed the customer experiences are gaining utmost attention in the eyes of marketers. Sadly, there is still scare in the precise definition concept and empirical research on consumer experience literature as many researchers have strongly addressed the absence in the empirical support.

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Chapter 26
Corporate Image and Brand Identification of Islamic Banks: The Perspective of Customers

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Abstract The development of Islamic banks in Malaysia is increasingly challenging with more banks offering products and services based on Islamic principles. This study explores customers' perception towards corporate image and its impact on self-expressive value, brand distinctiveness, brand attractiveness and brand identification towards their most preferred Islamic bank in Malaysia. Institutional theory and social identification theory were exploited as the underpinning theories for developing the conceptual model. Accordingly, data was collected through firstly interviews with customers, Shari'ah supervisors, practitioners and lecturers of Islamic banking. Next, self-administered questionnaires were distributed among 400 customers of Islamic banks through purposive sampling. Analysis of data was then conducted through descriptive, exploratory and confirmatory factor analysis. Subsequently, structural equation modelling with 308 respondents was then conducted to test the hypothesised relationships among the constructs, as postulated in the model. Nine hypothesis links are supported, while eight are rejected. Expectantly, this study facilitates the development of corporate image in Islamic banks, particularly with intense competition from many players of the industry.

Keywords Corporate image • Brand identification • Islamic banks • Customers • Perception

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26.1 Introduction

During the last five decades, the Muslim world has called for an alternative in banking in order to implement Islamic rules and principles when conducting business or trade. Undoubtedly, this requires transformation in the financial and economic activities in accordance to Islamic values and principles, among others, to ensure that the prohibition of giving and taking interest is upheld, as well as to propagate profit sharing in business transaction. Malaysia, being one of the Muslim countries, at that time, was very enthusiastic in initiating an Islamic financial system, and therefore Tabung Haji, the pilgrimage fund, was established as the first Islamic savings institution [1].

Indeed, the emergence of Islamic banking in Malaysia is very robust due to the support from the government towards promoting the country as an international Islamic financial hub. Starting with only two banks that could be considered as the pioneers of Islamic banking, Malaysia has now boast a number of Islamic financial institutions, through its conventional counterparts having their own Islamic subsidiaries after more than a decade of transforming themselves as Islamic windows. In addition, more licences have been issued to the international players to participate and establish their own Islamic banks in this country as a way to liberalise the financial sector [2]. Therefore, it is inevitable that the banks offering Islamic banking products and services need to prepare and equip themselves to deal with the challenges ahead in order to be in the forefront in the Islamic banking industry. One of the ways that we could achieve this is through a reputable and diversified range of products and services, along with desirable corporate image that would boost confidence and enhance customers' retention towards their service provider.

Undoubtedly, many studies have indicated that corporate image is very important in any organisation [3, 4]. It tends to be the filter in choosing products and services through the organisation's uniqueness embedded in its vision, culture and values [5], particularly when it is difficult to evaluate its product or service quality, value or satisfaction due to its similarity or simplification in the purchase decision-making [6]. Ultimately, positive corporate image provides an opportunity for generating profitability [7] through premium charges [8] and customer patronage [9] which clearly has an effect on sales and market share [10].

26.2 Problem Statement

Inevitably, the greatest challenge to Islamic banking particularly the full-fledged Islamic banks would be to compete with the well-developed and mature conventional banking industry which has been evolved over the past many centuries [11]. Malaysia, being one of the pioneers in Islamic banking, would also have to face a similar confrontation, in particular, when they are operating a dual banking system where conventional banks have also been seen establishing their Islamic

banking subsidiaries. To a great extent, the Islamic banking industry is currently faced with intense rivalry from the long-established and well-accepted conventional banking system that has been dominating the industry for the past decades [12]. Nevertheless, the crucial wake-up call for all the Islamic banks is the fact that Malaysia is envisaged to become the centre for international Islamic finance. Subsequently, the Malaysia International Islamic Financial Centre was established in August 2006 [13] to ensure that the initiatives are achieved. Consequently, having to deal with so many competitors in a particular industry such as Islamic banking would inevitably lead towards creating a strong corporate image.

In light of the above reasons, it is clearly useful and timely to study corporate image towards customer loyalty pertaining to the Islamic banking industry. There has been few research embarked on or reported dealing with this topic within the examined context. However, it is acknowledged that there is an abundance of empirical research dealing with corporate image or brand personality [3, 14, 15].

Overall, the objectives of this study are as follows:

(a) To investigate the existence of corporate image in Islamic banking based on institutional theory
(b) To identify whether there is any relationship between the brand attractiveness and consumer loyalty specifically based on the social identification theory [15]

Consequently, the study seeks to elicit the opinion of customers of Islamic banks on the importance of corporate image and their patronage as well as their loyalty towards their most preferred Islamic bank. Expectantly, this will help us to better understand the customers' attitudes and perceptions towards corporate image and loyalty towards a specific Islamic bank of their preference.

26.3   Literature Review

The concept of branding is indeed important particularly in differentiating products or services of a particular producer from other producers of a similar kind. The American Marketing Association defines a brand as '*a name, sign, symbol, or design or a combination of them, intended to identify the goods or services of one seller or group of sellers and to differentiate them from those of competitors*' [16]. Aaker [17] advocates that a distinctive brand name or symbol can associate an organisation with benevolence that surrounds its products or services. In addition, Farquhar [18] proposes that consumers will be willing to pay premium amounts for a unique brand. Therefore, the differentiation between products and services of similar kind or those of competitors could only be signified through branding [19, 20].

The institution theory is the preferred guiding theory in this research for the following reasons. Firstly, it has been widely applied and referred to organisational performance [21, 22], marketing strategy [23, 24], retail patronage [25] and corporate social responsibility [26, 27].

In addition, the social identification theory is established indicating that organisational images are systematically linked to members' self-concepts and maintains that organisational membership can confer positive or negative attributes of a member [28]. The attractiveness of the image will indeed determine the extent to which a perceived organisational identity influences the level of identification of a member. Consecutively, the attractiveness of an organisational image relies highly on the extent to which it enables self-continuity, that is, consistency of self-concept, self-distinctiveness and self-enhancement [29]. Specifically, it was stated that satisfaction with the organisation, its reputation and the visibility of affiliation influence the members' level of identification [30].

26.4   Development of Hypothesis

A brand allows the consumers to express his or her own self [31], through associating oneself with the brand personality [17]. Consumers often acquire relationships with the brands similar to forming a relationship with other people [32]. Aaker [33] argued that a brand is used for self-expression and to reflect one's self-concept. Apparently, institutional image and performative image are deemed important in Islamic banks. Hence, those images may reflect one's self-concept, specifically, in terms of how they express themselves. In addition, those images are also important in determining person distinctiveness. Brand attractiveness and brand identification, subsequently, depend highly on those images (performative and institutional image). Consequently:

H1: Institutional image of an Islamic bank is related to self-expressive value.
H2: Performative image of an Islamic bank is related to self-expressive value.
H3: Institutional image of an Islamic bank is related to distinctiveness.
H4: Performative image of an Islamic bank is related to distinctiveness.
H5: Institutional image of an Islamic bank is related to brand attractiveness.
H6: Performative image of an Islamic bank is related to brand attractiveness.
H7: Institutional image of an Islamic bank is related to brand identification.
H8: Performative image of an Islamic bank is related to brand identification.

Self-concept which is often denoted as self-congruity [34] is guided by self-concept motives including self-esteem and self-consistency [17]. Consumers without doubt will assume that the use of the brand should meet their need for self-esteem when there is collaboration between the symbolic attributes of a brand with the consumer's ideal self-image [35]. Self-esteem occurs when there are discrepancies between the behaviour of the actual and ideal self [36]. On the other hand, self-consistency emerges when there is a consistency between how consumers see themselves with their actual self [35].

Individuals often associate brand characteristics with positive inspirational goals [37] as advocated by the social identity theories [38]. They frequently transfer the success of a brand or a product unto themselves [39]. By associating with a

particular brand, individuals demonstrate membership in a particular social category, which reinforces a desired social identity, and consequently, customers may be specifically attracted to brands that are viewed as being distinctive [37]. This would then lead to higher levels of attractiveness of the brand. They also stated that eventually customers want to elevate their own self-esteem, and therefore they select brands that possess desirable characteristics including being distinctive. Consumers perceive attractiveness of a brand personality with more distinctive brands than less distinctive brands. Therefore, consumers might eventually associate themselves with brands that can be classified as distinctive which would lead to higher levels of identification [28].

Additionally, the social identity theory proposed that individuals tend to incline towards brands that are clearly differentiated from others [37]. Specifically, they tend to have some form of identification with the brand when there is a clear distinctiveness. In addition, brand's attractiveness will lead towards customer identification with a brand. Therefore, it is postulated that:

H9: Self-expressive value is highly related to the attractiveness of a brand personality.
H10: Distinctiveness of brand personality is highly related to its attractiveness.
H11: The greater the attractiveness of the brand personality, the greater the consumers' identification with the brand.
H12: The distinctiveness of a brand will have an impact on consumers' identification with the brand.

The image congruence hypothesis proposed that consumption behaviour is a reposition towards enhancing the self-concept through the consumption of products that provide symbolic meanings [40]. Once individuals identify with a brand, the desire to associate with it takes on behavioural consequences [37]. Consumers often buy products or brands to give to others that are associated with the entity (symbol passing), as well as buy them for themselves (symbol collecting) to demonstrate their relationships with the brand. Specifically, individuals tend to behave positively including having positive word of mouth or purchasing or repurchasing products or brands that are deemed attractive More importantly, individuals that identify with a particular brand tend to spur positive words about it to others and may behaviourally be loyal to the brand. Therefore:

H13: The attractiveness of a brand in terms of its personality has an impact on word of mouth.
H14: The attractiveness of a brand in terms of its personality has an impact on brand loyalty.
H15: Consumers' identification with a brand has a direct effect on word of mouth.
H16: Consumers' identification with a brand has a direct effect on brand loyalty.

Word of mouth is often denoted as informal communication about the characteristics of a business or a product which occurs between consumers [41]. Consumers tend to trust word-of-mouth communication with a reference group more than they do commercial information resources in estimation of brand alternatives

[42], frequently respecting word of mouth as a means to reduce risk in making purchase decisions. A study by Parasuraman et al. [42] showed that when consumer perceptions of service quality are high, consumers are willing to recommend the company to others. Why does information by word of mouth have an effect upon consumers? One of several possible explanations is the vividness of such information [43]. Word-of-mouth information is fresher because first-hand experience is passed directly to other people. Accordingly, word-of-mouth communication is retrieved more easily from memory, and its impact on consumers is relatively greater [43]. On the other hand, it is postulated that positive word of mouth will lead towards behavioural loyalty such as purchasing those products and brands. Therefore:

H17: Word of mouth has an impact on brand loyalty.

26.5 Research Methodology

Exploratory study through some in-depth interviews was employed for this study and further developed through cross-sectional study by way of questionnaires. It is likely that those survey questionnaires will then be distributed in malls and stations of public transportations as well as selected Islamic banks within Klang Valley whereby those respondents will answer themselves. A six-point rating scale was used to describe the items listed in the dimensions ranging from 'very strongly disagree' to 'very strongly agree' for all the questions involved in this study. Specifically, the respondents involved in this study were selected from the population of adult customers having an Islamic banking account for more than 1 year.

The analysis is further conducted, namely, through exploratory factor analysis and confirmatory factor analysis. A total of 308 survey responses were analysed in this section. Consequently, the sequence of analysis took the following order: firstly, exploratory factor analysis (EFA) was performed on each measurement model to assess unidimensionality. More importantly, factor analysis is employed to cut down a large number of variables to a smaller set of fundamental factors that summarise the important information embedded in a construct [44]. Upon inspecting the results, any ill-fitting item would then be removed.

Subsequently, CFA was performed on those measurement models that comprised of purified measures derived from the first step, which is exploratory factor analysis. Subsequently, the relationship among constructs incorporated in the hypothesised conceptual model was tested using AMOS (version 16). Table 26.2 illustrates the results of the hypothesis testing, while Table 26.1 generates the regression weight for the hypothesised model.

Table 26.1 Regression weight for the hypothesised model

		Construct	Est.	S.E.	C.R.	P
Self-expressive value	←	Inst	0.206	0.173	1.189	0.234
Distinctiveness	←	Inst	0.253	0.171	1.478	0.139
Self-expressive value	←	Perform	0.241	0.148	1.628	0.103
Distinctiveness	←	Perform	−0.242	0.146	−1.656	0.098
Attractiveness	←	Self-expressive value	0.170	0.068	2.498	0.012
Attractiveness	←	Distinctiveness	−0.099	0.105	−0.947	0.344
Attractiveness	←	Inst	0.208	0.091	2.287	0.022
Attractiveness	←	Perform	0.533	0.092	5.772	***
Brand identification	←	Attractiveness	0.451	0.141	3.191	0.001
Brand identification	←	Distinctiveness	0.556	0.099	5.609	***
Brand identification	←	Inst	−0.269	0.162	−1.662	0.097
Brand identification	←	Perform	0.197	0.165	1.188	0.235
Word of mouth	←	Attractiveness	0.320	0.051	6.261	***
Word of mouth	←	Brand identification	0.148	0.031	4.770	***
Brand loyalty	←	Attractiveness	0.584	0.087	6.752	***
Brand loyalty	←	Brand identification	−0.058	0.047	−1.234	0.217
Brand loyalty	←	Word of mouth	0.446	0.109	4.095	***

*** $p < 0.001$

Table 26.2 Results of the hypothesis testing

Hypo	Hypothesised path	Hypothesis testing
H1	Institutional image → self-expressive value	Not supported
H2	Performative image → self-expressive value	Not supported
H3	Institutional image → distinctiveness	Not supported
H4	Performative image → distinctiveness	Not supported
H5	Institutional image → brand attractiveness	Supported
H6	Performative image → brand attractiveness	Supported
H7	Institutional image → brand identification	Not supported
H8	Performative image → brand identification	Not supported
H9	Self-expressive value → attractiveness of brand personality	Supported
H10	Distinctiveness → attractiveness of brand personality	Not supported
H11	Attractiveness of the brand personality → consumers' identification with the brand	Supported
H12	Distinctiveness of a brand → consumers' identification with the brand	Supported
H13	Attractiveness of a brand → word of mouth	Supported
H14	Attractiveness of a brand → brand loyalty	Supported
H15	Consumers' identification with a brand → word of mouth	Supported
H16	Consumers' identification with a brand → brand loyalty	Not supported
H17	Word of mouth → brand loyalty	Supported

26.6   Discussion and Conclusion

Indeed, organisations that categorise themselves as Islamic banks have the problem towards total implementation of Islamic banking. This is due to the fact that at present, the products are mostly adopted and adapted from conventional banking. Hence, in order for Islamic banks to differentiate themselves from the conventional counterparts, they have to promote Islamic norms and values, in addition to protecting the needs of Islamic society, although as a business organisation, they have to also think on their profit making. More importantly, performative image and institutional image are deemed significant in determining corporate image in Islamic banks.

Apparently, performative images should be accomplished as it tends to be the most significant indicator of corporate image, as to boost Islamic banking to greater heights and to be competitive with their conventional counterparts. Specifically, Islamic banks need to be at par with the conventional banks or even perform better, in providing Islamic banking products and services to customers. They have to pay attention to the needs of customers and, more importantly, their service delivery, in differentiating themselves from their competitors, which is very crucial in driving customer loyalty, since products of Islamic banks are homogenous.

Eventually, they need to serve the customers well including having the image of friendliness, honesty, reliability, security, achievement orientation, leading orientation, up-to-dateness and excitement and all other norms and values that indicate performance. Additionally, it is about time that Islamic banks come out with their own products, particularly relating to equity-based financing or profit-loss Sharī'ah (PLS) mechanism [45]. Only then will the Islamic banking system be competent in mobilising and allocating resources in the economy in eliminating interest or 'riba'.

Drawing from the positive response to the empirical part of this study, banks that provide Islamic banking products and services should always portray an Islamic image within its whole operational system and its outlook. As mentioned previously, the maqasid al-Shari'ah (the objectives of Shari'ah) should always be the foundation upon which Islamic banks are established; thus, it requires strong commitment from the organisations. Every individual, particularly the employees of Islamic banks, has to play their role to ensure that justice, integrity, trust, brotherhood and other aspects of Islamic values are achieved.

This study may benefit Islamic bankers if they look into the needs for implementing corporate image. The discussion of the objectives of Sharī'ah and the needs of having corporate image provides adequate guidelines to Islamic bankers in promoting the image of god-consciousness, in particular, the image of being Islamic, humbleness, trustworthiness and fairness. Hence, Islamic bankers need to focus on these dimensions of god-consciousness, the second most prominent dimension in enhancing customer loyalty, as well as customers' adoption of Islamic banking.

On that same note, customers should be made aware that Islamic banking is an alternative to conventional banking. As mentioned previously, the establishment of

Islamic banking should not only be for the purpose of profit maximisation. Rather, it should be promoting Islamic norms and values, as well as protecting the needs of Islamic society, as a whole. Although corporate social responsibility is deemed insignificant, perhaps, due to Islamic banks' contribution on their certain amount of profit that has to be channelled to zakāh, which signifies social responsibility, nevertheless, Islamic banks are required to perform continuously its duty towards the society.

It is also important to note that institutional, as well as performative, image is very pertinent in determining brand attractiveness. Consequently, Islamic banks need to emphasise the importance of both images in providing Islamic banking products and services to their customers. Self-expressive value seems to determine brand attractiveness. Indeed, customers tend to patronise a bank which they feel has some certain degree of similarity or resemblance of their own values or personality. Therefore, the banks need to have some form of values or personalities which match their customers' profile.

In addition, brand attractiveness is one of the elements that shape customers' identification with a brand. It is acknowledged that customers will associate with any brand which they found to be attractive and appealing. More importantly, they will have an interest with those brands that correspond to their values, needs, wants and personalities. Significantly, brand attractiveness has an effect on word of mouth and brand loyalty. Hence, banks need to ensure the attractiveness of its banking products and services in order to ensure that the present customers will spread the good word about the banks. Perhaps, when other customers hear those praises about a particular bank, this will create an avenue for them to switch to those banks and eventually be loyal to the bank.

Nevertheless, word of mouth specifically on Islamic banks of the customers' preference tends to become significant for customers of Islamic banking, specifically on behavioural loyalty. Significantly, it is very pertinent for managers to understand the role of word of mouth since it may lead towards behavioural loyalty. Undoubtedly, in such services as those in banking industries, such factors including word of mouth are very pertinent to determine customers' behavioural loyalty. Consequently, they need to maintain and, more importantly, to upgrade their services or provide a quality and reliable product. Perhaps, they need to think of attracting them to purchase other products and services or, better still, to engage with those older and potential customers, as merely having accounts with their preferred bank is not adequate enough to determine behavioural loyalty. They have to ensure that the quality of their products and services are up to the expectation of their customers. Eventually, if the customers feel that the quality of services is up to their expectation, they would then promote those products or services to other people, particularly, their friends, relatives and neighbours. Subsequently, this would also enhance their loyalty towards the banks of their preference, since the possibility of switching to other banks is very minimal, particularly, when they are happy with their current banking product and services.

On that similar note, one of the ways to establish customer loyalty is through well-structured reward programmes, particularly those which could provide

customers with relationship benefits that are attractive to them. Perhaps, loyal customers could be given some extra cash money for saving or investing with the bank, or they could be given some points that purchase products, and those accumulated points could then be exchanged for cash money or other items. Then, they will spread the benefits they gained from the banks to their relatives and friends, and eventually, more people will patronise the bank and probably be loyal to them.

Indeed, Islamic bankers need to be constructively involved in educating their customers about the distinctive characteristics of their products and services, as compared to their conventional counterparts. They need to equip themselves with relevant knowledge as this involves faith (religion) and, eventually, explain the uniqueness of Islamic banking products. They should be bold enough to assert and prove that Islamic banking products have distinctive features and, as such, do not contain the element of interest, although some of the Islamic banking products are adopted from the conventional counterparts. Consequently, Islamic banks need to pay attention to explaining some of the issues pertaining to the products (e.g. 'ibra' or rebate when financing the properties bought, handling complaints, price of Islamic banking products in terms of financing) in order to enhance and sustain the image and reputation of Islamic banking.

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Chapter 27
Career Commitment and Intention to Leave Among ICT Professionals in Malaysia

Safiah Omar and Fauziah Noordin

Abstract The study on career commitment is important in employment retention issues. It was regarded that professional employees are committed to their profession more than the organization itself. This study evaluates the level of career commitment among 303 ICT professionals located in Peninsular Malaysia and investigates whether it has any influence on their level of intention to leave. The results found that career identity, career planning and career resilience have negative influence on both intention to leave the organization and intention to leave the career. All three constructs of career commitment were found to have significant impact on intention to leave the organization. However, only career identity and career resilience were found to have significant impact on intention to leave the career. It was also found that the level of intention to leave the organization is higher than the career. Implications of this study and recommendation for future studies were discussed.

Keywords Career commitment • Intention to leave • ICT professionals

27.1 Introduction

The growth of technologies in the information and communications technology (ICT) industry is found to be not aligned with the growth of the skill supplies [1]. This raises the concern on the possibility of shortages in skill supplies of the employees in the ICT professions [2] which could endanger the development of the national economic growth. Particularly in Malaysia, as a developing country investing heavily on the development of ICT technologies in order to move towards becoming the developed country by the year 2020 [3], the vision cannot be realized if such problems in the employment issue in the ICT industry occur. Thus, the possible solutions should be determined as soon as possible.

Recent turnover rate shows that the ICT industry is ranked the highest at 75.72 % [4]. The high turnover rate is worsened by the retirement of the baby boomers [5]

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who are currently at their 50s and above. To add, the number of the students who enrolled into ICT programmes has dropped tremendously by more than 50 % since 2001 [6]. This made the numbers of ICT graduates to also become lower than those in the early 2000s, while the demand of the ICT skills is growing larger. Such phenomenon causes the disequilibrium between the supplies and the demand of the skills needed in this particular industry.

Those employees who are directly involved with the technical tasks that required certain skills relating to ICT works are known as the ICT professionals. They are one of the main and important assets in this industry. Thus, it is paramount to assess the current conditions among the existing ICT professionals in order to identify whether they have high level of intention to leave or vice versa. In order to find the relevant factors to their determination of intention to leave, career commitment was chosen because it was found previously that professional employees are more committed to their profession rather than the organization itself [7].

27.2 Literature Review

A. Career Commitment

Career commitment was defined as motivation towards a vocation [8]. Career commitment is involved with the drives of an individual to work in a particular work area or profession. An individual's attachment to a specific organization may result from identification with specific types of a career [9]. Earlier, there were redundancy issues on operationalizing career commitment [10], but recent developments on career commitment [11] combined with career identity, career planning and career resilience were able to be measured as constructs in this current research.

The outcomes for career commitment are skill development, career withdrawal intentions and job withdrawal intentions [12]. In the same study, it was found that career commitment was related to only career withdrawal and not related to job withdrawal. Another study found that career commitment is an important determinant that possibly has stronger effect on work outcomes rather than organizational commitment [13]. Thus, it was suggested that further attention should be given to career commitment because it has weak and inconsistent relation with work behaviours [14].

B. Intention to Leave

The intention to leave has been used as the determinant to actual behaviour of leaving among researchers rather than the measurement of the actual leaving itself [7, 15–19]. This is because according to the theory of reasoned action, intention has

been regarded as the final decision before the actual behaviour takes place [20]. Furthermore, the determinations of how many actually intended to leave the organization and the career can assist the forecast of the industrial job market realities for future uses. To add, individuals who have the intention to leave have often been associated with being disengaged from the work tasks, have high absenteeism and have poor work performances [21] which can endanger the ICT industrial growths in the long run. Therefore, it is important to find effective ways to reduce the employees' intention to leave especially for this particular study, the ICT professionals.

The employment leaving mechanism started from transferring of unit to unit, from one organization to other organizations and the most severe from one career to another [22]. Hence, this study distinguished between two intentions to leave which are the intentions to leave the organization and intention to leave the career which are given two different meanings. The intention to leave the organization occurred when an individual intends to leave the current organization to work somewhere else but stays within the same career. The intention to leave the career is when the individual has the intention to leave the current organization to work in another organization that diverts away from the current career. For example, an ICT professional leaves the organization and the ICT career to work in a fitness centre as a fitness instructor. The ICT industry cannot afford to lose much more current professional employees especially with the findings that the new generations (especially Generation Y) are not attracted to the ICT industry as they associated it with complicated work tasks, tiring work hours and no glamour as compared to other types of occupations [1, 2, 23].

27.3 Methodology

The quantitative method was chosen to be used in this study in order to measure whether there is a relationship associated between the studied variables which are career commitment and both intentions to leave the organization and the career. The aim is also to measure the relationship (if any) in the research model between career commitment and both intentions to leave grounding based on past literatures that have been established which reported on the existence for these particular relationships.

Three types of collection methods for the questionnaires were used which were mail, drop-off/pickup and online. The participating organizations' representatives which are the human resource managers then selected the collection method that is preferable according to their management's decision. This is based on their locations and availability or the reach between the researchers and the respondents. There were two organizations that chose the mail method, nine organizations that chose the drop-off/pickup method and four organizations that chose the online method which gives the total of 15 participating organizations.

There were two types of sampling method used in this research which are the cluster and simple random sampling. In choosing the participating organizations, cluster sampling was used. The list of world-class status taken from the Multimedia Super Corridor (MSC) was obtained in order to represent the ICT professionals' population of Malaysia. Then, simple random sampling was suggested to the human resource managers to be used in selecting the ICT professionals that participated in this study for each particular organization. The uses of simple random sampling method were briefed to the human resource managers before the main data collection takes place. This is important in order to ensure that all the potential participants were given the equal chance of being chosen as the respondents for this study.

A. Samples of Study

There were 303 ICT professionals that participated in this study among all 15 organizations. The sample work nature ranges from and not limited to networking, software development, system technician servicing, etc. There were 59 % males and 41 % females. Sixty-three percent have bachelor's degree, 18.6 % have master's degree and 1.7 % obtained professional courses. The samples were Malay (61.9 %), Chinese (25.2 %), Indian (11.3 %) and others (1.7 %).

B. Assessment Instruments

The instrument used to measure career commitment is career commitment measure (CCM) [11]. The multidimensional constructs were built based on the work of [24, 25] which then becomes the dimensions for career commitment by [11]. The development of CCM supports the evidence of discrimination validity which is distinct in all three construct dimensions. CCM also ensures that the aspects of redundancy and overlap do not exist which provide higher confidence for researchers to choose this particular assessment instrument. Therefore, this instrument is the best in this particular study and the 7-point Likert scale was used. It was reported that the coefficient alpha reliabilities for the three dimensions ranged from 0.79 to 0.85.

The instruments used for intention to leave were taken from [22]), covering the aspects of searching, thought and intent, for example, 'Presently, I am actively searching for other job'. The same instrument was used to measure the intention to leave the organization and intention to leave the career. The words that referred to leaving the organization were modified in order to give meaning to leaving the career, for example, 'Presently, I am actively searching for *other career than ICT*". The instrument used was the 7-point scale where 1 represents 'strongly disagree' and 7 represents 'strongly agree'. The Cronbach's alpha for intention to leave the organization is 0.88 while intention to leave the career is 0.92.

C. Analyses

The collected data were analysed using Statistical Package of Social Statistics (SPSS) version 20. The frequencies of data were first tested to find the level of studied variables by looking at the means and standard deviations. The associations between the variables were tested using bivariate correlation analysis. Finally, multiple regressions were used to identify the relationships that may exist among the studied research framework.

27.4   Results and Findings

A. Descriptive Statistics

The mean score for all variables is at moderate level (Table 27.1). Results show that the respondents have higher intention to leave the organization ($M = 4.13$; $SD = 0.88$) than the intention to leave the career ($M = 3.53$; $SD = 0.85$). The results indicate that there is a higher possibility of the ICT professionals to leave the organization rather than to leave the ICT career.

Career planning achieved the highest mean score ($M = 4.93$; $SD = 0.85$) within the career commitment construct followed by career identity ($M = 4.62$; $SD = 0.80$) and career resilience ($M = 4.46$; $SD = 0.85$). The average mean score for career commitment constructs is 4.67. This shows that the ICT professionals are moderately committed to their career.

B. Correlations

Table 27.2 shows the correlation results among the studied variables. The results indicate that the relationships between the constructs of career commitment and both intentions to leave the organization and the career were significant and negatively related whereas intention to leave the organization and intention to leave the career are positively related. All results were significant at 0.01 level. It is found that for intention to leave the organization, career resilience ($r = -0.592$) scores the highest correlation followed by career identity ($r = -0.578$). For intention to leave the career, the highest relationship is also with career resilience ($r = -0.553$) and then followed by career identity ($r = -0.530$).

Table 27.1 Mean score for career commitment and intention to leave

Dimensions	Mean	SD
Career commitment		
Career identity	4.62	0.80
Career planning	4.93	0.85
Career resilience	4.46	0.84
Average career commitment	**4.67**	
Intention to leave the organization	4.13	0.88
Intention to leave the career	3.53	0.85

Note: 1.00–3.99 = low; 4.00–4.99 = low-moderate; 5.00–5.99 = moderate-high; 6.00–7.00 = high

Table 27.2 Correlation results between career commitment and intention to leave

Variable	1	2	3	4	5
1. CI	1				
2. CP	0.716**	1			
3. CR	0.672**	0.516**	1		
4. ITLO	−0.578**	−0.517**	−**0.592****	1	
5. ITLC	−0.530**	−0.438**	−**0.553****	0.791**	1

Note: *CI* career identity, *CP* career planning, *CR* career resilience, *ITLO* intention to leave the organization, *ITLC* intention to leave the career
**Correlation is significant at the 0.01 level (2-tailed)

C. Regression Analyses

In Table 27.3, the model tested between career commitment and intention to leave the organization is found to be significant ($p < 0.001$). The result for the R-square is 0.421. This tells that 42.1 % of intention to leave was explained by the constructs of career commitment.

Table 27.4 indicates the coefficient results among the constructs of career commitment with the intention to leave the organization. The highest standardized beta value is career resilience ($B = -0.359$) that is significant at $p < 0.01$. Both career identity and career planning also are significant ($p < 0.05$). All the t-values are negative and large which indicates that the independent variables are significantly related to the dependent variable.

Table 27.5 shows that the model tested between the constructs of career commitment and intention to leave the career is also significant ($p < 0.01$). The R-square is 0.350. This means that 35 % of intention to leave the career is explained by the existence of career commitment among the ICT professionals.

Table 27.6 shows that both career identity and career resilience have significant impact on intention to leave the career ($p < 0.05$). The standardized beta values for both career identity and career resilience are −0.22 and −0.35, respectively. However, career planning is found to be not significant with intention to leave the career ($p > 0.05$) with the beta value of −0.095.

Table 27.3 Regression analysis between career commitment and intention to leave the organization

	Intention to leave the organization				
Variable	P-value	df	F	R-square	Result
Career commitment	0.00	3	74.26	0.421	Sig.

Table 27.4 Coefficient result for career commitment and intention to leave the organization

	Unstandardized coefficients		Standardized coefficients		
	Beta	Std. error	Beta	t	Sig.
Constant	10.135	0.416		24.370	0.000
Career identity	−0.370	0.132	−0.204	−2.810	0.005
Career planning	−0.316	−0.0107	−0.185	−2.949	0.003
Career resilience	−0.616	0.102	−0.359	−6.059	0.000

Table 27.5 Regression analysis between career commitment and intention to leave the career

	Intention to leave the career				
Variables	P-value	df	F	R-square	Result
Career commitment	0.000	3	55.21	0.350	Sig.

Table 27.6 Coefficient result for career commitment and intention to leave the career

	Unstandardized coefficients		Standardized coefficients		
	Beta	Std. error	Beta	t	Sig.
Constant	8.983	0.447		20.109	0.000
Career identity	−0.413	0.141	−0.225	−2.922	0.004
Career planning	−0.164	−0.115	−0.095	−1.430	**0.154**
Career resilience	−0.614	0.109	−0.353	−5.622	0.000

27.5   Discussions

Negative relationships were found between career commitment and both intentions to leave the organization and the career. These provide evidences that the existence of career commitment among employees is able to influence the behaviour of intention to leave both for the organization and the career. The negative relationships that existed between career commitment and intention to leave either the organization or the career indicate that the higher individual is committed to their career, the lower the level of their intention to leave would be. This is consistent with previous studies that found similar relationships between career commitment and intention to leave [7, 12, 26–30].

It was found in the regression analyses that the relationship between career planning and intention to leave the career was not significant although in the correlation analysis, it was found otherwise. The standardized beta values for career

resilience and intention to leave the career were very low. This result is unexpected because previous evidences showed that there were negative relationships that existed between the constructs of career commitment and career withdrawal rather than job withdrawal [12] and in this study supposedly the intention to leave the career rather than the intention to leave the organization.

The inference that can be made on the insignificant results between career planning and intention to leave the career perhaps is due to the conception that planning in career has longer terms compared to planning that involves the organization which can be more flexible. The longer terms involved in career planning open up some grey areas for the individual to adjust on some flaws or slight diversion that they might have in their career. It is well understood that the ICT work nature is highly involved with tremendous technological advancement that somehow requires employees to be more flexible in planning their career path as it might involve with slight changes in skill acquisition along their working arena. Thus, although planning in career can be important at work, it is not necessarily the reason for them to leave the career when it does not meet up to their expectation as ICT professionals. The availability of being flexible in their work planning somehow adjusts to the prior requirements that individual work desire needs. The relations can be explained by the theory of cognitive dissonance [31]. This theory foundation brought this study to infer that these ICT professionals might have the favourable mindset that they will stay in their career even though it does not fall aligned with the plans that they have because of the requirements needed that cannot be avoided in order to pursue their ambitions in the career. Thus, it is possible for this study to find such new evidence that there were no significant relationships between career planning and intention to leave the career.

27.6   Conclusion

In conclusion, it is important for organizations to encourage career commitment among the employees because there is possibility that it might reduce the level of intention to leave for both the organization and the career. Low levels of intention to leave can contribute in reducing the work disengagement and other possible consequences can be avoided in the future. All three career commitment constructs should be taken seriously among employees by the organization and industry as it can be one of the important factors for retention strategies. Strengthening the elements of career identity, career planning and career resilience among ICT professionals in Malaysia may assist on solving the issues of skill shortages that the industry of ICT might be facing in the future. On the other hand, this study cannot be generalized to other industries than ICT in Malaysia; thus further study should replicate this study model into a different industry or in different work settings such as in a different culture. It is suggested also that the study of career commitment should also be considered to be studied qualitatively in order to find the real reason for the individual to be committed towards the career specifically in the ICT

industry. More future studies on intention to leave should also distinguish between intention to leave the organization and intention to leave the career in order to further understand the different relationships involved among the two variables.

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Chapter 28
Enhancing Business Performance Through Supply Chain Integration Strategy of Food Processing Industry in Malaysia: A Conceptual Paper

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Abstract The contribution of the food processing industry in Malaysia to the economic development of the country is significant. Presently, this industry is experiencing continuous and rapid growth as consumer demand for processed food increased in both local and global market. However, many food processing firms in Malaysia failed due to their inability to cope with micro and macro challenges. In addition, many are unable to maintain their position in the market and have difficulty to improve their business performances. This situation is also escalated by the high involvement of small- and medium-scale companies in this industry that have limited tangible and intangible advantages. It is postulated that effective involvement of the food processing manufacturers in supply chain integration is important as this strategy would enable them to become more competitive and be able to cope with rapid market demand. As such, the objective of this article is to gather evidences that indicate the impact of supply chain integration practice on firm's operational performance in the context of the food processing industry in Malaysia. To do this, a conceptual model is proposed based on the literature review and the analysis of in-depth interview responses conducted with the food processing manufacturers. The accumulated literature and exploratory study find that the concept of supply chain integration that comprises internal, supplier and customer integration is an important relational factor to improve business performance. The study will provide important implications for the management in this industry to understand the best practices or strategies that contribute to the success of the firm.

Keywords Supply chain integration • Internal integration • Supplier integration • Customer integration • Operational performance

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28.1 Introduction

Today's new era of globalisation has heightened the complexity of business environment due to greater dynamics of competition and the demand to meet higher standards. As a result, new business strategy concepts have emerged such as co-opetition (competition and cooperation simultaneously) which has been adopted widely by many firms. In fact, current business network performance has been used as an indicator to measure the level of business performance instead of relying on an individual firm's performance only.

Apart from the above reason, the practice of supply chain integration (SCI) has become one vital strategy that has received considerable attention from academics and practitioners, and among others Vaart and Donk [1] have indicated the significant growth of academic literature on SCI specifically in food industry. Indeed, there are numerous empirical studies that have supported the positive impact of SCI on firm's business performance, either from financial or nonfinancial aspects like competitive capabilities [2], customer service performance [3], product innovation [4] and operational performance [5]. Consequently, this strategy has attracted many businesses especially those in developed countries where business competition is rife. Subsequently, the impact of globalisation has influenced some emerging economies in Asia such as China to emulate the same strategy. According to Stank et al. [6], efficient and effective SCI strategy has managed to reduce firm's cost by up to 7 % and improve cash flow by more than 30 %. There appears to be a significant relationship between SCI and the firm's operational performance as indicated by previous findings.

From a theoretical perspective, literature has indicated that integration significantly improves a firm's business performance. However, in practice, some authors claimed that the implementation process of SCI strategy is very challenging and difficult to implement [7, 8], and the integration model is complicated [9]. For this reason, the process of implementing SCI strategy requires some effort. Awad and Nassar [10] pointed out that the challenges of SCI could be categorised into three essential aspects which are relationship (behavioural), managerial and technical.

Another issue related to SCI strategy is the contention with respect to the benefits of SCI execution. Whilst this strategy is widely accepted and adopted by some firms, the concept is confusing and often misunderstood, and there are times when the outcome of this strategy failed to meet a firm's business forecast [11]. In fact, only a small number of firms have participated in SCI comprehensively [12], and approximately 29 % of these firms were unsuccessful in implementing the strategy effectively [13]. Furthermore, prior studies indicated that about 60 % of supply chain alliances did not manage to increase their business performance [14]. Therefore, it shows that even though prior empirical studies showed a direct positive impact of SCI on firm's business performance, there is also the argument that integration strategy does not always lead to the expected increase in business performance [15].

Although there are many contrasting findings relating to the relationship between SCI and business performance [5], integrated supply chain is still accepted and considered by many companies as a key factor of success [16]. Ramayah et al. [12] in their studies found that there are some companies in developed countries that have proven their success in implementing SCI. Among them are Walmart, Toyota and Dell, and most of these companies have enjoyed the benefits of SCI implementation. Impressively, it was found that these companies have outperformed their competitors. Therefore, it can be postulated that a firm's business performance can be improved and increased through the execution of SCI and it can become a prime source of competitive advantage.

28.2   Background of the Study

A. *Food Processing Industry in Malaysia*

The food processing industry is considered as a part of the manufacturing process industry that involves transformation activities of raw materials into agro-based food products. It is based on mass and large-scale production and also capital and technology intensive in order to minimise the production costs and to enhance the value added to the food product. This industry is considered as one of the main contributors to the nation's economic growth [17], and its contribution in terms of labour employed and value-added creation is essential and is indisputable for the nation's industrial development. Furthermore, the emergence of a strong relationship between this industry and other sectors such as agriculture and the retailing sector will allow them to form business relationships that will be based on the concept of an effective supply chain management. Indirectly, the formation of this business relationship will help the food manufacturers to improve their business performance and subsequently increase the country's economic development as well.

Recognising the importance of this industry to the nation's growth, the Malaysian government has created various initiatives in order to ensure the sustainability of the local food processing sector. Most importantly, the government has identified that this industry has great potential to expand not only locally but also at the global level. This is due to the increased in awareness and consumer demand for halal processed food. Nevertheless, the government has also identified various problems that may hinder the continuous growth of this sector such as the dearth of raw materials, low technologies [18], operational logistics problems [19] and limited access to the export market [20]. Furthermore, local food processing firms are still relying on the imports of several critical raw materials, and substantially, this situation will lead to increased operational cost. As a consequence, the price of their finished products becomes expensive and uncompetitive.

An exploratory data collection through interviews with selected food producers found that they face the problems of how to improve and maintain their business performance as well as their position in the market. One critical factor influencing this is the intense competition that these manufacturers face from producers of neighbouring countries such as Indonesia, Thailand and China that offer relatively low product prices. This has affected the local food manufacturer's capability to compete locally and globally.

In the context of SCM in Malaysia, Ismail and Roslin [21] revealed that one of the vital relational elements that influence competitive advantage is the activity of integration. This provides more empirical evidence to support the significant linkages between SCI and business performance. Indeed, the adoption of effective and efficient integration in the entire chain of food processing activities is essential as it has a significant impact on the firm's performance. The whole chain of food processing industry includes agricultural production, the transformation process and the distribution of processed food to the end users. Therefore, a crucial and strong relationship between this industry and others such as agriculture and retailing sectors cannot be neglected.

Ismail and Roslin [21] also found that the higher the degree of integration among the chain members, the higher the degree of information sharing among them. When information is shared, integration is more visible as this is the link that indicates operational efficiency. Without information, supply chain members are unlikely to experience integration as the sharing denotes trust and cooperation in the execution of supply chain management. Therefore, this study adopts the understanding that the practice of supply chain integration is key in addressing the impact of the firm's performance improvement specifically in the context of food processing industry in Malaysia.

B. Problem Statement

Although the importance of SCI strategy has been acknowledged by academics and practitioners in the field of supply chain management, there is a limited number of strong empirical evidences that examine the impact of SC relational integration on performance [1]. As a result, there is a need of study that institutes the multidimensions of SC relational integration in a single model to enhance organisational performance [5]. This study will utilise quantitative methods for both stages such as data collection and data analysis as it is a quantitative study in nature.

28.3   Literature Review

A. *Concept of Supply Chain Integration*

Studies on supply chain management (SCM) are growing rapidly in various disciplines such as operation management, strategic management and also marketing, and many authors supported the importance of SCM in this new era of globalisation [22]. For this reason, new definitions of SCM have developed over time indicating the evolution of SCM. Jain et al. [23] explained SCM as the management of business processes or activities associated with the coordination and linkages of supply chain network, and the network comprises multiple firms of different forms, sizes and types of products manufactured. The functions of these networks are to transform the raw materials into finished products and to move the finished products to the end user through efficient and effective SCM. Importantly, the ultimate goal of SCM practice is to maintain and increase the quality of product and customer satisfaction without any increment to the firm's production cost. Besides that, Prater and Whitehead [24] describe SCM as a process of managing and coordinating all business or operational activities and related information through cost-effective supply chain network.

These definitions helped to conceptualise SCM in a broader and wider application, with the emphasis on relational key elements, namely, integration, collaboration, interaction and coordination. In relation to this, the ultimate outcome of SCM practices is to maximise the value and satisfaction of the customers by keeping low firm production cost and high product quality. Instead of focusing on the integration of raw materials, products and other business processes and activities, Prater and Whitehead [24] have included one important factor in the definition which is information, and it has become a vital component in many supply chain studies.

Another key element in supply chain research is the concept of integration. Integration can be described as the level of interaction, coordination and collaboration of different functions (logistic, purchasing and marketing) and firms (supplier, manufacturer and customer), in order to attain high positive financial and nonfinancial outcomes [8]. In addition, Chen et al. [25] assert that numerous factors including operations and relational factors can be integrated among the supply chain members, which can be beneficial to them in attaining positive business performance.

According to Vickery et al. [3], supply chain integration (SCI) is an activity that comprises internal integration, namely, cross-functional integration, and external integration such as suppliers, distributors and customers. In addition, van Donk et al. [26] stated that the concept of SCI is commonly referred to as the seamless flow of tangible and intangible elements such as products and information from the stage of the supplier until the stage of consumption. Similarly, the definition of SCI as specified by Flynn et al. [5] also indicated the concept of collaboration, coordination, interaction and cooperation among multiple functions and firms. In addition,

some authors have emphasised the concept of strategic partners in SCI which is considered as an important element in highly uncertain environment [27].

Frohlich and Westbrook [28] have defined SCI as a strategic partnership between the manufacturer and its main suppliers and customers and also within its internal cross-functional network. The objective of this strategic partnership is to ensure that the effective and efficient flow of tangible (products) and intangible factors (information, relationship and decisions) can be achieved through superior chain networks. The ultimate goal of this process is to create customer's value. As such, it can be postulated that SCI practices cannot be separated with the concept of collaboration, coordination and cooperation among the intra- and inter-organisational processes as emphasised frequently by previous authors. Also, an important point to highlight is that the ultimate goal of this strategy is to satisfy customers' needs and wants, by keeping the firm's production and operations at low cost and consistently and continuously maintaining the quality of products.

However, there are those who contended that the definition of SCI is still vague [29, 30] even when there are an increased number of SCI studies. The problems might be caused by the utilisation and adoption of different measurements or dimensions, definitions and concepts of SCI as well as the methodologies used in the studies. For instance, Frohlich and Westbrook [28] examined the effect of SCI on business performance of 322 global firms. In this study, upstream and downstream integration dimensions have been employed, whilst internal integration dimensions are neglected. Similarly, both dimensions have also been utilised by Rosenzweig et al. [2] and Devaraj et al. [31] in their studies.

However, some studies have utilised other SCI indicators in order to measure the impact of SCI on performance. For example, Pagell [32] specifically considered internal integration as an indicator for the development of SCI construct. The author has drawn attention on the elements of internal integration comprising of operations, logistics and purchasing. Research by Yunus [33] and Flynn et al. [5] empirically has used three forms of SCI dimensions, namely, supplier, customer and cross-functional elements. Also, Koufteros et al. [34] have employed the internal and external integration aspects in order to examine the impact of SCI on product development. Stank et al. [6] assert that the inclusion of internal and external integration in SCI construct is crucial as these factors have significant impact on firm's business performance. Although previous studies have included both internal and external measurements, [35]), however, did not split the external integration into two different categories of supplier and customer integration.

Most studies hold similar views that SCI has a positive impact on business performance. For example, one of the earliest studies and prominent empirical findings in the context of SCI is that by Frohlich and Westbrook [28] who claimed that superior firm's business performance is strongly related to the greatest level of SCI. In fact, there are other empirical studies that found SCI's significant relationship with business performance [33, 36], but there are also contradicting findings. Flynn et al. [5] argue that there are inconsistent findings pertaining to the linkages between SCI and business performance, whilst Devaraj et al. [31] found that customer integration has no significant effect on firm's operational performance.

Empirically, some authors confirmed that integration of focal firm with supplier has an impact on the business performance [4, 37], but there are other studies that discovered negative or no relationship between supplier integration and performance [6, 38]. Pagell [32] has also studied and examined the impact of internal integration on business performance. What can be claimed at this point is that some scholars have linked business performance and internal integration [32, 39] whilst others do not see the direct relationship between internal integration and business performance [34, 40].

Although previous research has demonstrated inconsistent findings between SCI and business performance [5, 41], it is contended that SCI dimensions do have some associations with business performance and can be a key weapon in determining the success of companies [7, 42] and a means to gain competitive advantage [43].

B. Operational Performance

In strategic management, performance measurement plays an essential role in managing a business as it guides firm in making decisions by providing necessary information [44]. In fact, they explained that good performance measurement and metrics will increase the cooperation and improve the organisation's performance. There are various methods used by researchers to measure business performance that is related to supply chain study. The identified performance measurements are financial and nonfinancial performance [45]. Most importantly, previous studies have conceptualised nonfinancial as multidimensional construct which consists of operations excellence, customer relationship and revenue growth [46], productivity growth, quality, delivery, customer relationship and flexibility [47] and operational performance [33]. Hence, flexibility, delivery, cost and quality [5] are important dimensions that are associated with operational performance in the supply chain context.

Numerous studies have provided evidence pertaining to the significant relationship between SCI and operational performance. Flynn et al. [5] discovered that SCI has a significant impact on operational performance. Similarly, Bagchi et al. [42] also investigate the relationship between SCI and operational performance, and they revealed that operational performance is also influenced by the practice of SCI. On top of that, Vanpoucke [45] contends that high level of operational performance can be obtained through the efficiency of SCI. As such, the multiple nonfinancial measurements can be considered in the study of SCI because according to Jusoh and Parnell [48], nonfinancial measures are one of the indicators of tangible assets and can be considered as key drivers of firm value.
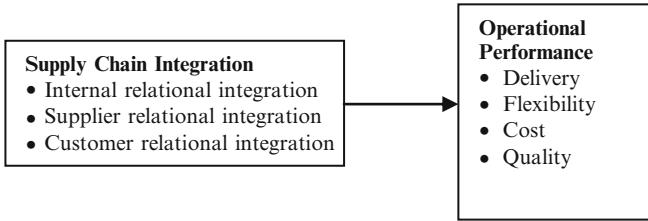
Fig. 28.1 Research framework

28.4 Proposed Research Framework

Based on the evaluation of relevant literature, it is proposed that there is enough evidence to show the linkage between SCI and operational performance. This is illustrated in Fig. 28.1 which depicts the proposed research framework where SCI is the independent variable and operational performance is the dependent variable.

SCI is measured through the integration of internal relations, supplier relations and customer relations, whilst operational performance will be measured by delivery, flexibility, cost and quality dimensions. These are postulated to exist in the food processing industry where operational efficiency is important in ensuring business success. Without operational performance, food manufacturers are unlikely to be competitive. What is now proposed is that SCI is a probable variable that will affect the performance of the food manufacturers.

Accordingly, one of the SCI food processing factors that has been proposed in the framework is internal relational or cross-functional integration. Internal integration is the process of coordinating the chain of activities or inter-functional integration within a company with the aim to increase customer value [47]. In the food processing industry, all the independent functions, including production, logistics and marketing among others, have to work together holistically in order to achieve optimum outcome. Importantly, inter-functional integration will facilitate the coordination of focal food producer with its external partners, and simultaneously it is postulated that this integration has a significant association with the improvement of business performance.

Another dimension proposed in this study is relational integration of focal firm with its customer and supplier. This is considered as the main source of competitive advantage that has a significant impact on business performance [49]. Improvement of delivery performance, accuracy of production plan, understanding the market needs and preferences [46] and also improvement of product quality are among the benefits that can be obtained through effective and efficient strategic partnerships between the focal firm and its suppliers and customers. In previous studies, the strategic partnership has led to the enhancement of business performance [28, 37], and consequently, this best practice will benefit each of the chain members. Therefore, it is postulated that there is a positive relationship between internal, customer and external relational integration and firm performance. Thus, this study

will illustrate the relationships between internal, supplier and customer dimensions and firm performance specifically in the context of the Malaysian food processing industry. The proposed research framework will be based on social capital theory as this study is related to the integration that comprises social interaction among the SC partners.

28.5 Conclusion

The review of literature together with initial exploratory interviews with key manufacturers of food products in Malaysia has revealed a need to understand the impact of SCI on operational performance. It has been established that SCI is a worthy variable to study as the importance of integration appears to be a subject of interest among the practitioners, academics and policymakers who understand the critical application of supply chain management. It is hoped that when this study is executed, much will be understood about SCI and its impact on performance in order to add and enhance the existing body of knowledge on supply chain integration.

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Chapter 29
Work and Home Demands on Work-Family Conflict Among Academicians in Achieving Work-Life Balance: A Conceptual Study

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Abstract The issues related to work-life balance have become a phenomenon and received substantial attention over recent years. Working individuals have to juggle work and home demands in their lives in order to balance them. It is possible for individuals to be out of balance, feel tired, and not be able to manage their lives efficiently. As a result, individuals who are practicing multiple roles inevitably experience conflicts which could further jeopardize their quality of lives. Hence, this paper aims to propose a conceptual framework by investigating the effect of work and home demands on work-family conflict in achieving work-life balance among academicians. The individual's level of job involvement, work-role conflict, and work overload are identified as the sources of work demands, whereas the family involvement and family conflict are taken as home demands. Three forms of work-family conflict are also discussed in this paper due to combining work and home demands. Practically, there is an urgent call for an organization to find flexible and innovative solutions that would enable employees to achieve work/family balance. In short, helping employees to achieve a certain level of work-life balance could go far in increasing employee's work and life satisfaction.

Keywords Work demand • Home demand • Work/family conflict • Work/life balance

29.1 Introduction

The issues pertaining to work-life balance have received a big attention for the past years [1], but less attention has been given to scrutinize the reality of work-life balance satisfaction in the higher educational sector [2–4]. Work-life balance has

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become a debated issue in many organizations due to the significantly increasing numbers of working women and dual-career and single-parent families. Several possible factors may explain this phenomenon such as the increase in dual-career household, employees increasingly occupying simultaneous work and family roles, and employees dealing with job-related demands [5]. Moreover, the increasing numbers of employees with eldercare responsibilities decrease in job security, and a blurring of work–family boundaries is also a significant factor that urged the organizations to help their employees to perform well at work and function meaningfully in their homes [6–8]. Evidence shows that the interference of unwelcome work demand into personal life, for instance, working during weekend, would give stress and emotional exhaustion for employees. This could negatively affect their health [9], and their responses are more reactive than proactive, and they are unable to think right [10].

According to Noraaini and Ghee [11], a university is a center for imparting higher education that cultivates new knowledge as well as to provide the right kind of leadership and to promote equality and social justice. Hence, in achieving the mission and goals of the university, the academicians are facing pressures in meeting this demand. Many researchers have confirmed that work pressure has been continuously increasing among academicians globally in the last 15 years [12]. Studies have shown that academic females experience more work- and family-related stress compared to male colleagues [13]. This situation occurs due to the fact that women still hold the main responsibility for domestic and caring tasks within the home. It was also found that academicians will be less motivated if they are not given a reasonable workload [11]. Thus, if a person experiences low motivation at work, he or she will experience work-family conflict due to the quality of family life that is deteriorated because of the pressure from work.

In short, managing work-family conflict has important consequences for employee attitudes toward their organizations as well as in their lives in achieving work-life balance [11]. It is assumed that improving an organization's work-life balance leads not only to greater productivity but to greater organization loyalty. Thus, this study aims to investigate the effect of work and home demands on work-family conflict in achieving work-life balance among the academicians in affiliated colleges in Klang Valley, Malaysia.

29.2   Literature Review

A. Work-Life Balance

Work-life balance is one of the most difficult issues facing families in the twenty-first century. Due to economic pressures, the need for dual-earner families has significantly increased in which majority of families now require two breadwinners to meet the rise in the cost of living [13, 14]. These pressures often create conflicts

for women and men in trying to balance their career responsibilities. Besides work obligations, many of them are bringing up young children and taking care of their aged parents.

In this study, work-life balance is defined as the extent to which an individual is equally engaged in and equally satisfied with his or her work role and family role. Employees who experience high work-life balance would exhibit similar investment of time and commitment to work and nonwork domains [15]. Such conflicts arise from a clash of "roles" within the work and family spheres (i.e., inter-role conflict) [16] which is due mainly to a combination of personal, domestic, and societal "expectations and demands" [17]. Consequently, complying with work roles could make it very difficult for the individual to participate in expected family roles and vice versa [17].

In short, achieving balance between work and home demands helps the individual to predict well-being and the overall quality of life [16, 18]. Nevertheless, [19] suggested that managing work/family balance offers several advantages to the employees. These include having greater responsibility and a sense of ownership, having better relations with management, avoiding bringing problems at home to work, having more time to focus on life outside work, and having greater control of their working lives. On the contrary, failure to achieve balance is associated with several negative consequences such as reduced job and life satisfaction [20, 21], decreased well-being and quality of life [22–25], increased stress [26], impaired mental health [27, 28], and family conflict [29]

B. Work-Family Conflict

A concept of work/family balance can be better understood with thorough discussion of the fundamental concept of work/family conflict. Based on the role theory framework, Kahn et al. [30] defined work and family conflicts as "a form of inter-role conflict in which the role pressure from the work and family domain are mutually incompatible in some respects." Conflict occurs when one experiences pressure from two different roles simultaneously, and it has two-way possibilities: "work-to-family conflict" in which the quality of family life is lowered because of the pressure from work and "family-to-work conflict" in which the quality of work life is deteriorated because of the pressure in the family life. The role theory predicts that when a person is having multiple roles, it would be more difficult for him/her to perform each role successfully. These are due to the conflicting demands on time, lack of energy, or incompatible behaviors among roles. Hence, psychological conflict could occur when individuals assume multiple roles, particularly when each role cannot be adequately fulfilled. As a result, the person has difficulties in managing his or her work-life balance successfully.

C. Work Demands

According to Kabanoff [31], work is a set of prescribed tasks that an individual performs while occupying a position in an organization, whereas demand refers to "a global perception of the level and intensity of responsibility within the work of family domain" [32].

Past studies have evaluated various sources of work variables. Work demand can be considered as antecedents of work-family conflict because they are related to role behavior, behavioral intentions, and work performance of employees across the work and family domains [33]. Higgins and Duxbury [34] have focused on work demand as a source of work-family conflict because individuals have relatively less control over their work lives than their family lives.

1. Job Involvement

Job involvement is defined as a serious job-involved person and mentally preoccupied with the job having important values at stake and emotionally affected by job experiences [35]. It is presumed that a person with high job involvement possesses these characteristics: (1) mentally preoccupied with work and more likely to satisfy essential needs, (2) connects more fully to their work and to others, and (3) emotionally affected by their job and to seek to be psychologically present [36, 37]. In addition, research has demonstrated a positive relationship between job involvement and work-family conflict [38, 39]. This implies that individuals with high levels of work involvement may not achieve work-life balance due to devoting an excessive amount of energy toward work. High work involvement has resulted in more hours spent in work which in turn leads to a higher level of work-family conflict [40, 41]. Other researchers have verified direct relationship with work involvement and work-family conflict [38, 42, 43].

2. Work-Role Conflict

Work-role conflict is defined as the extent to which a person experiences incompatible role pressures within the work domain [44]. Individual experiencing work-role conflict may experience tension and stress within that particular role. If it is left unresolved, it could lead to greater problem particularly engaging in another role. Hargreaves [45] has identified six types of role conflict or strain in his study. For instance, (1) occupancy of two or more positions whose role is compatible, (2) disagreement among occupants of a position about the content of a role, (3) disagreement among occupants of a complementary position B about the content of position A's role, (4) disagreement between role partners about the definition of one's or other's role, (5) different role partners having conflicting expectations of a third party, and (6) a single role partner having a conflicting expectation of another.

Several empirical evidences showed that work role has significant relationship in relation to work-family conflict. For instance, if a person experiences work-role conflict, he or she may experience stress. This may trigger conflict between the different roles. As a result, it may increase the level of work/family conflict [44].

3. Work Overload

Work overload can occur when work demands exceed an individual's abilities and resources to perform their work roles comfortably [42]. When excessive demands occur in one domain (work), resources have to be borrowed from another domain (family), leading to higher work-to-family interference. It is also a direct predictor of work-family conflict. It occurs when the total demand on time and energy is too great for an individual to perform roles adequately [46, 47]. This happens when an individual takes too many roles at one time. When a person perceives his/her workload to be high, he or she would experience negative emotions, fatigue, and depression.

Work overload might be a critical hindrance to women's career growth and success as compared to men's career growth. This is due to female employees and managers have many role demands or responsibilities that pressure them to work harder and to prove their competencies [48, 49].

Past studies have shown that work overload has a direct and positive effect on work-to-family interference [50–52]. An individual experiencing work overload may experience stress and psychological strain [53]. Obviously, work overload becomes a stressor when the individuals feel that they have too many responsibilities or tasks in a defined period. For instance, when excessive demands occur in work role, resources have to be borrowed from the family roles. Hence, many researchers have shown that work overload has a relationship with work-family conflict [52].

D. Home Demands

Home demands are referred to as the commitments and obligations beyond work in which the demand may exist in the family, in the community, or through the choice of leisure activities [54]. It can be explained by understanding the level of demands that exists in the family institution. For instance, someone who is young and single is considered to have low home demand, whereas individuals with dependent children or taking care of elderly parents are assumed to have high home demands. Studies have shown that home demand such as family involvement and family conflict has a significant relationship on work-family conflict.

1. Family Involvement

Family involvement is defined as the obligation to take care of others who are either formally or informally sanctioned family members [50]. This includes the spouse, parents, children, siblings, and children of siblings. Family involvement has been identified as a predictor of work-family conflict [38, 41, 42]. Findings in the previous study showed that family involvement was related to work-family conflict.

Applying Kahn's [36, 37] view to family involvement, it can be deduced that a person possessing high level of family involvement may be more mentally and physically occupied with family activities. There is a presence of a high degree of awareness or sensitivity to the problems concerning family role [34, 55]. In one situation, a mother with an ill child may not be able to stop thinking about her child even though she must be at work and fulfill her work responsibilities. In another situation, an unexpected meeting after the office hours may contribute a problem to the parents from picking up his or her child from school. Of course, this will create a conflict to the parents.

Family involvement entails spending more time on family-related work such as childcare and household chores [56]. In relation, time and psychological involvement with one's family has been shown to lead to work-family conflict [42]. According to Baxter [57], "Women do about two thirds of the childcare tasks, and at least three quarters of the routine everyday indoor housework tasks, and also spend about three times as many hours as men on the latter." This indicates that married women have a very high demand at home. Parents, especially mothers with young children, have higher family demands than those with older children. The demands such as childcare arrangement and care of sick children will lead to lower levels of control over the work and family interface [58]. This situation makes them incapable of balancing their work and personal life. This indicates demand of home can be a significant determinant of work-life balance.

2. Family Conflict

Family conflict can be defined as the extent to which a person experiences incompatible role pressures within the family domain [44]. Several negative circumstances are derived from family conflict such as parental overload, children misbehavior, degree of tension in the family, amount of juggling, dissatisfaction with home division of labor, and husband and wife disagreement about family roles.

Researchers have found that family conflict is detrimental to the family unit [59]. Conflict in the family domain has resulted in various negative jobs and life outcomes. For instance, family conflict has been connected to family risks of mental health disorders, major chronic diseases and early mortality [59], psychiatric symptoms [60], family satisfaction [55, 61], and stress [56]. Furthermore, family conflict was revealed to be the most critical factor that influences the level of work-

family conflict [62]. Specifically, the presence of dual-career lifestyle has increased the relationship between family conflict and work-family conflict.

29.3   Conceptual Framework

Figure 29.1 illustrates the proposed conceptual model that will investigate the home and work demands as the antecedents of work-family conflict and work-life balance. In this study, work-family conflict is the mediator, and it is regarded as the incompatibility role pressures that come from the sources of work demands such as the level of job involvement, work-role conflict, and work overload. However, for the home demands, the sources are family involvement and family conflict.

Based on the review of the literature, this study aims to investigate the following research questions:

Research question 1:
Does work and home demand affect work-family conflict in achieving work-life balance?

Research question 2:
Which factor will highly affect work-family conflict in achieving work-life balance?

Research question 3:
Does work-family conflict mediate the relationship between work and home demand and work-life balance?

H1:
There is a relationship between work demand and home demand among employees.

H2:
There is a relationship between work demand and work-family conflict among employees.

H3:
There is a relationship between home demand and work-family conflict among employees.
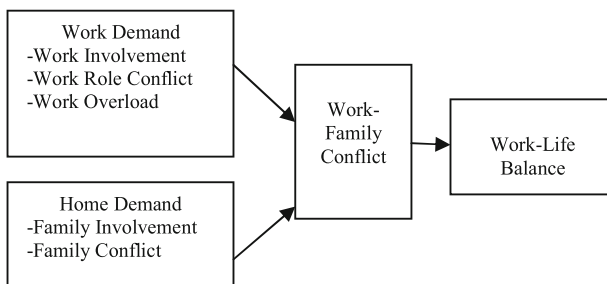
Fig. 29.1 Proposed conceptual model

H4:

There is a relationship between work demand and work-life balance among
employees.

H5:

There is a relationship between home demand and work-life balance among
employees.

H6:

There is a relationship between work-family conflict and work-life balance among
employees.

H7:

Work-family conflict mediates the relationship between work demand and work-
life balance among employees.

H8:

Work-family conflict mediates the relationship between home demand and work-
life balance among employees.

29.4   Methodology

The population of the study will involve academicians from affiliated colleges in
Klang Valley. A sample size of 377 will be taken from the total population of
20,000 academicians in the area [63]. The study will utilize the questionnaire as the
instrument to collect data from the respondents. A stratified sampling technique will
be used to distribute the questionnaires to the respondents. The appropriate sample
size is necessary to strengthen the significance of findings and reduce the effect size.
The research design in this study will be correlational in nature. There are four
main variables to be tested using correlation analysis and structural equation
modeling. The possible outcomes from the tested variables will determine its
significance of the relationship. The descriptive analysis will be applied in analyz-
ing the demographical data of the respondents. The results from the correlation
analysis will be used to describe the hypothesis. With structural equation modeling,
the following two-step approach will be utilized to test the causal relationship
among the constructs.

29.5   Conclusion and Implication

This study proposes that work and home demands could be the influential factors
that will determine to what extent individuals experience the work-life balance. It is
intriguing to uncover whether work-family conflict would mediate work life bal-
ance among the academicians. In trying to simultaneously meet the demands and
responsibilities associated with work and home demands, many individuals may be
likely to experience role conflict. Many organizations are helping employees to

balance their work and family as their strategy to attract and retain capable employees. Thus, improving an organization's work-life balance leads not only to greater productivity but to greater organization loyalty. Ultimately, it will be crucial to obtain the empirical evidence from the data to be collected and further analyzed. Indeed, these results would provide the flexible and innovative solutions that would enable employees to achieve work/family balance.

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Chapter 30
Evaluating Loyalty Intention Through the Influence of Servicescapes and Shoppers' Experiential Values

Zuraini Alias, Mokhtar Abdullah, Rosmimah Mohd Roslin, and Siti Halijjah Shariff

Abstract This paper outlines an exploratory analysis of a much larger study on the effect of servicescapes and experiential values on loyalty intention within the context of department stores. Shoppers to department stores are exposed to a variety of servicescape elements such as ambience, atmospherics and sight and smell. Such elements are likely to create distinct experiences, and these may have an impact on shoppers' revisit intention to the department stores. This study operationalizes loyalty intention through revisit intention to the store, and based on the shoppers' responses to Aeon outlet in Bukit Tinggi Klang, it is found that servicescape and experiential values do influence loyalty intention. Although there may be other variables affecting loyalty intention among shoppers, it can be established that servicescapes and experiential values do play a role in creating a positive outcome, and as such, the findings may be useful to both academics and practitioners.

Keywords Servicescape • Loyalty intention • Experiential values

30.1 Introduction

The Malaysian retail industry is marked by a variety of retail concepts and outlets that are competing to attain customers' patronage. There is a distinct development of more modern and innovative shopping malls and as a result, competition among retailers has become more profound. Furthermore, the retailing industry today has become more challenging with the existence of global and more established players. Malaysia's remarkable economic growth and its population offer potential for various forms of retail investments. Among those investment is the development

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of these shopping malls which has contributed to increased competition. Retailers are competing among each other in terms of pricing, promotions, products and services. Customers have become the main focus for retailers when strategizing their retail activities, and indeed, customers are now a major priority for retailers [1].

The retail industry has moved into a more mature stage where competition has reached its peak and there are those that are exiting the market due to their inability to compete effectively. Within an intensively competitive market, it is becoming more difficult for retailers to take advantage of merely common marketing offerings such as products, prices, promotions and retailing network. Indeed, most department stores carry more or less similar assortment of products to the customers and this makes it more difficult to compete based on common marketing elements [2–5]. In addition, customers are also becoming more sophisticated and are aggressively seeking value, more choices and experiences when they visit retail stores [6]. It is this type of environment that is contributing to the changes in the retail scenario. This implies the need to study retail demands in a more structured manner. One of such demand is the attraction of customers towards retail outlets where servicescapes offer a respite for tired shoppers who select shopping locations that are in line with their needs.

30.2   Statement of Problems

In this very aggressive retail environment, it is important for retailers to be different and to stand out in the maze of shopping strategies. Without a doubt, retailers spend enormously to design, build and furnish their establishments. Aggressive competition has moved many retailers to employ the store environment as a source of differential advantage [4, 7]. The differentiating factor that can be adopted by retailers is through their servicescape that is tailored to meet customers' needs, not only in terms of products, convenience and pricing but also in providing an enjoyable and, possibly, exciting shopping atmosphere [8–11]. This is supported by Bodhani [12] who asserted that the retail brick and mortar shopping experience needs an injection of excitement through retail environment experiences which consumers could not get from online shopping. Some retailers and their technology partners however have started using technology to personalize the customers shopping experience. In response to these changes, new elements of servicescape have emerged which are influencing shoppers' retail experience.

Such experiences are related to the experiential values which shoppers seek when selecting shopping outlets. Experiential values are linked to elements of experiential marketing where the creation of holistic customer experiences is derived through rational and sensory emotive consumption motivations [13]. As such, it is envisaged that shoppers who experienced a positive emotive expression in their shopping tasks brought about by servicescape elements are more likely to become repeat patrons. Thus, this study seeks to clarify such an association between

the servicescape, experiential values and loyalty intention when shoppers are more inclined to visit the shopping outlet again and therefore leading to the assumption of loyalty intention.

30.3   Research Objectives

The study is essentially a part of a much larger study that focuses on aspects of servicescapes, experiential value and loyalty intention among shoppers of department stores. For this paper, the following research objectives are outlined:

Objective 1: To determine whether servicescape has significant relationship with loyalty intention among shoppers of department stores

Objective 2: To assess the influence of experiential values on loyalty intention among shoppers of department stores

Objective 3: To measure the mediating effect of experiential value on the relationship between servicescape and loyalty intention

30.4   Literature Review

Customer value is defined by Woodruff [14] as customer's perceived preference for and evaluation of those product attributes, attribute performances and consequences when using the products or services. Creating high value for customers is the basis for positioning strategies (e.g. [15]) and leads to competitive advantage over rivals (e.g. [14, 16]). Value creation is also associated with customers' experience in patronizing the retail outlets and retailers therefore see this as an input that will pave the way for them to strategize and attract potential customers.

It has been suggested that servicescape may have a strong influence on customers' loyalty intention [17], and through improving the in-store environment, a store can create an effective ambience to stimulate consumers' immediate purchasing intention [18]. Although there have been studies that associate servicescape with satisfaction [19–21], not many has actually evaluated its influence on loyalty intention and the mediating effect of experiential values. According to Bitner [22], the term 'servicescape' refers to physical factors within the control of the firm as a means of attracting customers. As such, there are evidences that servicescapes influence specific actions of shoppers as they visit retail outlets.

Chaudhuri and Holbrook [23] describe loyalty as a behaviour or the act of purchasing repeatedly. Loyal customers are believed to be vital to business survival and there has been many studies that have proven that customers' satisfaction can influence repurchase intention and loyalty [24–26]. Wong et al. [27] asserted that by comprehending the behaviours of customers and enhancing conditions that foster repeat patronage is a critical marketing outline, and Jacoby and Chestnut [28]

have defined loyalty intention as customers' nature to either repurchase a product/ service from an organization or go to a competitor. In addition, Shoemaker and Lewis [29] have stated that when customers feel that their relevant needs are met by specific products and/or services, they become loyal to the retailer. Thus, loyalty is an important variable which marketers seek to achieve.

However, true customer loyalty is hard to maintain without understanding the effect of the personal attitudinal behaviour [30]. This is where the servicescape application becomes relevant. There is a need to explain how customer behaviours are affected by physical environment of a store. Servicescape elements may create positive feelings and as such influence repeat patronage much like brand repurchase as stated by Chaudhuri and Holbrook [23]. As positive feelings are associated with experiential value, it is postulated that servicescapes' influence on loyalty intention may be mediated by such experiences. Diverse variables have been used to show the many sides of loyalty through various literatures. A number of these studies such as those by Sirohi et al. [31], Wutf et al. [32], Mei-Lien et al. [33], and Gull and Tariq [34] have studied loyalty within the context of retail stores like supermarkets, discount stores, department stores and grocery stores.

Alternatively, Harris and Ezeh [35] used servicescape as a variable moderated by personal and environmental factors that were tested on loyalty in a restaurant service context. To date, this study is one of the first efforts to link servicescape and loyalty, but they have not studied the dimension of customers' experiential value in their research. Referring to the research contexts other than retail environment, such as the travel industry, information system provider, online service, salon, hotels and automobile, these have also not explored servicescape together with experiential value. Furthermore, not many have been focused on department stores and how servicescape may affect loyalty. In line with this, the underpinning theory for this study is built upon the servicescape model as proposed by Bitner [22], and this is integrated with Mathwick et al.'s [36] understanding of experiential value. Thus, the framework in Fig. 30.1 describes the proposed relationship among the variables of this study.

The dependent variable loyalty intention is the focus of the study as it is the variable that is postulated to emerge when patrons of department stores perceived that the servicescapes are conducive and the value they placed on the store visit has moved them to revisit the store. Within the context of department stores, loyalty intention is associated with revisit intention and this would be an advantage to store managers who seek means of enhancing store visits among target customers. As such, the following hypotheses are developed:

H1: There is a significant relationship between servicescape and loyalty intention among customers of department stores.

H2: Experiential value influences loyalty intention among customers of department stores.

H3: Experiential value mediates the relationship between servicescape and loyalty intention among customers of department stores.

Fig. 30.1 Theoretical framework
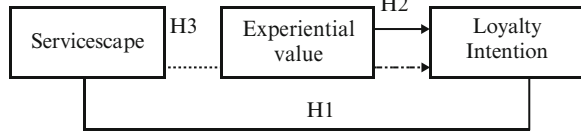
30.5 Research Methodology

The questionnaire was developed based on the literature relating to the theories of interest, including [22] servicescape typology, [36, 37] understanding of loyalty intention. Operationalization of the variables was based on literature where servicescapes was adapted from measures by Bitner [22] and O'Cass and Grace [5], experiential values were adapted from measures of Ahmed et al. [1], and loyalty intention came from Harris and Ezeh [35]. At this exploratory stage, this study concentrates on shoppers at AEON Bukit Tinggi, Klang, where the mall intercept method was utilized to obtain their responses. AEON Bukit Tinggi, Klang, was selected based on the presence of the AEON (Jusco) department store as the anchor tenant, and this was one of three other department stores selected for the bigger study. Although for this paper the concentration was on only one department store in the Klang valley, the nonprobability method of sampling is still relevant in allowing a relatively substantial analysis as this is just exploratory and is in fact a small part of a much larger study. The data collection process was conducted on the weekend in the month of August 2013. It is postulated that weekends would be the time that repeat patrons would be visiting their favourite stores.

30.6 Findings and Analysis

In total, 244 respondents answered the questionnaire and the data was analysed to answer the research objectives. A total of 244 were ultimately the number of responses obtained based on the period of time that was determined for the mall intercept method for the day which was between 12 noon and 3 in late afternoon. This was the time suggested by the management of Jusco as the peak time for shoppers to visit the store. A total of 96 males and 148 females participated in this study. The majority of the respondents were Chinese representing 57 % of the respondents with smaller percentage of Malays (35.7 %), Indians (5.7 %) and others (1.6 %). Respondents aged 35–44 years were the majority who participated in this study. Table 30.1 summarizes the demographic profile of the respondents.

Table 30.2 shows that the majority of respondents (95.5 %) were revisiting patrons; 54.1 % of the respondents reported that they have visited this department store more than 10 times during the year. Although there were 11 respondents who stated that they have never visited the department store in the year, they had been to this particular outlet at other times before this year. The largest group of individuals

Table 30.1 Demographic profile ($N = 244$)

Characteristics	Categories	Frequency	(%)
Gender	Male	96	39.3
	Female	148	60.7
Age	18–24 years	31	12.7
	25–34 years	73	29.9
	35–44 years	76	31.1
	45–54 years	42	17.2
	55–64 years	18	7.4
	65 years and more	4	1.6
Races	Malay	87	35.7
	Chinese	139	57.0
	Indian	14	5.7
	Others	4	1.6

Table 30.2 Visit characteristics ($N = 244$)

Characteristics	Categories	Frequency	(%)
Number of visits to this department store in a year	None	11	4.5
	1–2 times	17	7.0
	3–5 times	49	20.1
	6–10 times	35	14.3
	More than 10 times	132	54.1
Level of individual income	RM3000 or <	114	46.7
	RM3001–RM5000	75	30.7
	RM5001–RM7000	30	12.3
	RM7001–RM9000	13	5.3
	>RM9000	12	4.9

Table 30.3 Reliability analysis

Variables	Number of items	Cronbach's alpha
Servicescape	26	0.929
Experiential value	19	0.956
Loyalty intention	6	0.860

were with monthly incomes of RM3000 or less (46.7 %) while 4.9 % belong to the 'more than RM9000' group.

The analyses continued with the evaluation of Cronbach's alpha to determine reliability of the instrument and that the variables are consistently understood by the respondents. Table 30.3 provides the Cronbach's alpha of the three variables used in the study.

As all three variables displayed high alpha values, it is assured that consistency of the instrument is in place. The testing of the hypotheses proceeded and Tables 30.4, 30.5, and 30.6 describe the regression analysis carried out. Regression

Table 30.4 Regression analysis of servicescape and loyalty intention

Model	R	R square	Adjusted R square	Standard error of estimates
1	.615[a]	.378	.376	.64163

[a]Predictors: (constant), servicescape
[b]Dependent variable: loyalty intention

Table 30.5 Anova[a]

Model	Sum of squares	df	Mean square	F	Sig.
1	60.629	1	60.629	147.271	
Regression		242			0.000[b]
Residual	99.628	243	.412		
Total	160.258				

[a]Dependent variable: loyalty intention
[b]Predictors: (constant), servicescape

Table 30.6 Coefficients[a]

Model	Unstandardized coefficient		Standardized coefficients	t	SIG.
	Beta	Std error	Beta		
(Constant)	.707	.303		2.335	.020
Servicescape	.842	.069	.615	12.136	.000

[a]Dependent variable: loyalty intention

Table 30.7 Regression analysis of experiential value and loyalty intention

Model	R	R square	Adjusted R square	Standard error of estimates
1	0.698[a]	0.487	0.485	0.58289

[a]Predictors: (constant), servicescape
[b]Dependent variable: loyalty intention

analyses were carried out in order to predict the extent that servicescape and experiential values contribute to the outcome of the loyalty intention. This will answer the hypotheses postulated.

As H1 postulates that there is a significant relationship between servicescape and loyalty intention, the output of the regression analysis indicates a significant outcome with servicescape explaining 37.6 % variation of loyalty intention among shoppers of department stores. The relationship between servicescape and loyalty intention is denoted with $t = 12.136$, $p = 0.001$. Since the $p < 0.05$ here (at 95 % confidence interval), the overall effect of servicescape on loyalty intention is statistically significant, thereby supporting H1. Thus, the hypothesis is accepted, given the result of the analysis.

The assessment went further in evaluating the influence of experiential values on loyalty intention as indicated by Tables 30.7, 30.8, and 30.9.

Table 30.8 Anova[a]

Model	Sum of square	df	Mean squares	F	Sig.
1 regression	78.036	1	78.036	229.680	
Residual	82.222	242	0.340		0.000[b]
Total	160.258	243			

[a]Dependent variable: loyalty intention
[b]Predictors: (constant), experiential value

Table 30.9 Coefficients[a]

Model	Unstandardized coefficient		Standardized coefficients	t	Sig.
	Beta	Std error	Beta		
(Constant)	.958	.227		4.226	.000
Experiential value	.769	.051	.698	15.155	.000

[a]Dependent variable: loyalty intention

Fig. 30.2 Mediating effect of experiential value on the relationship between servicescape and customer's loyalty intention
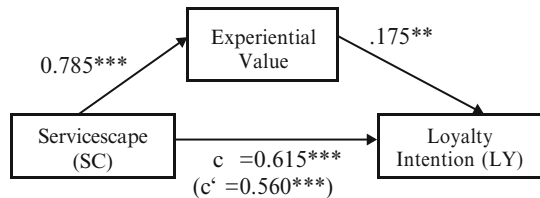
Again, a significant relationship is identified and experiential value accounts for 48.5 % of the variation on loyalty intention of department store shoppers. The relationship between servicescape and loyalty intention is denoted with $t = 15.155$, $p < 0.001$. As the $p < 0.05$ (at 95 % confidence interval), the overall effect of experiential value on loyalty intention is statistically significant, thereby supporting H2. This hypothesis is therefore accepted given the output of the regression analysis.

To test H3 on the mediating effect of experiential value on servicescape and loyalty intention, the following analysis was conducted using the path coefficient estimation in Fig. 30.2.

Regression coefficient is substantially reduced at the final step, but remains significant, which therefore indicates that there is partial mediation. That is, part of the effect of servicescape is mediated by experiential value, but other parts are either direct or mediated by other variables not included in the model as indicated in Table 30.10. H3, which predicts that experiential values mediate the relationship of servicescape on customers' loyalty intention, resulted to a finding of partial mediation.

Based on the outcome of the analyses, H1 and H2 are accepted, but for H3, only partial mediation is detected which does not fully support the hypothesis. The

Table 30.10 Summary of mediation analysis

	R	R^2	R^2 change	Beta
Analysis 1:	.615	.378		.615***
SC⟶LY				
Analysis 2:	.785	.616		.785***
SC⟶EV				
Analysis 3:				
EV⟶LY	.615	.378		.175**
SC⟶LY	.706	.499	.495	.560***

**p < .01, ***p < .001, all two-tailed

findings provide a basis for further inferential analysis to the study on loyalty intention among customers of department stores.

30.7 Discussion

The study seeks to evaluate at the exploratory stage the extent that loyalty is being influenced by servicescapes and experiential values. It is established through literature review that servicescape has the ability to create a distinct positive value among retail shoppers and as such may have the tendency to influence revisit intention. As indicated by the hypothesis testing exercise, there is indeed some influence of servicescape and experiential values on loyalty intention. This definitely concurs with Mehrabian and Russell's [38] approach–avoidance framework which has been used to explain the effect of the environment on consumer behaviour. What can be gathered from this basic analysis is that consumers are likely to be stimulated by some form of emotional stimulus which can be brought about by servicescape elements and this will lead to approach responses. The relationship is confirmed in extensive literature including Donovan and Rossiter [39], Wakefield and Blodgett [40], and Vida [41].

With experiential values, consumers who are exposed to positive experiences in their purchase process are more likely to revisit the store. This is in line with Frow and Payne's [42] finding which reiterated that in order for organizations to achieve the main goal in improving customer loyalty and increase profitability, priority must be given on creating a positive experiential value. In addition, Avello et al. [43] asserts that the implication of providing superior experience to visitors of shopping malls is that they tend to extend their stay in a shopping mall longer than planned and this may lead to possibilities of undertaking a higher number of purchases and spending more during their visit. Therefore, this exploratory analysis has established the need to understand further how loyalty can be developed within the context of retail environment.

30.8   Future Research

The exploratory nature of this study is undertaken as an initial step towards a much more comprehensive analysis. Although the findings provide only a basic outlook on the hypothesized issues, they are still relevant in providing an initial understanding of servicescapes, experiential values and loyalty intention within the context of the retail environment. Future studies may also look at servicescapes and experiential values from other environmental context of the service industry like train and airline services and also on events like sports or festive events. There is certainly a need to understand findings from different contextual and situational areas in order to concretize established theories.

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Chapter 31
The Relationship Between Human Resource Diversity Management Practices and Organizational Citizenship Behavior

Ahmad Nizan Mat Noor, Shaiful Annuar Khalid, and Nik Ramli Nik Abdul Rashid

Abstract The paper examines the role of human resource diversity management (HRDM) practices as predictors of organizational citizenship behavior (OCBI and OCBO). This study is quantitative and cross-sectional and the unit of analysis is individual. Survey questionnaires that contained measures of HRDM practices and OCB were distributed among full-time operational employees employed by identified star-rated hotel located in the north of Peninsular Malaysia. Multiple regression analyses were utilized to test the study hypotheses. The results of the study indicate that overall, HRDM practices were significant predictors of OCB. In this study, data collected was self-reported and cross-sectional in nature. Thus, same-source bias may be present. Next, the sample size was small and selected from a single organization. This affects the generalization of our findings. Future research project may be benefited from an exploration of a wider range of employees at different industries, national and cultural context. Significantly, these findings propose that policy makers and hotel practitioners should continue to place and develop greater emphasis on HRDM practices in order to enhance employees' attitudes and citizenship behavior. The results benefited the organization to gain better understanding of the usefulness of HRDM programs in their organization.

Keywords Human resource diversity management practices • Organizational citizenship behavior

31.1 Introduction

For decades, studies on organizational citizenship behavior (OCB) have become a phenomenon in organizational behavior research. Additionally, it was discussed extensively in psychology and management fields and obtained much attention in the literature [1–4]. As a concept, OCB was first introduced by Bateman and Organ

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[1], which relied on the notions of willingness to cooperate [5] and spontaneous or extra-role behaviors [6, 7]. Later, the growth of OCB construct has expanded and reported to receive vast interests from both practice and academia [8]. Commonly defined, OCB is "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system and that in the aggregate promotes the effective functioning of the organization" [9]. Furthermore, Organ [9] also noted that the word discretionary is the behavior that is not a requirement of a formal job description and is a matter of personnel choice, and failure to demonstrate such voluntary behavior is not commonly considered as a cause of punishment. Practically, researchers noted that OCB is deemed important to organizational functioning [1, 9] and also beneficial to organizations [10]. As pointed out by Organ [9], the survival of organization is heavily depending on OCB because it has potentially contributed in maximizing a range of organizational outcomes such as the coworker, managerial and team productivity, and also organizational performance [4].

Moreover, although many studies regarding OCB antecedents have been reported in the literature, OCB is constantly being reviewed by using social exchange framework to demonstrate individuals' citizenship behaviors in reaction to fair treatment by the organization [11]. However, further clarification on what specific HRDM practices can be used to elicit OCBs or what motivate employees to exhibit such behaviors appeared to be important. Furthermore, the implementation of HRDM practices appeared to be significant determinants of OCBs as diverse employees share different attitudes, needs, desires, values, and work behaviors [12, 13]. According to the review of Shen et al. [14], HRDM practices are strongly related to organizational interventions which aim to manage human resources equally and fairly. Thus, employees' experience regarding exchange relationships with their organization (manifested through HRDM practices) might shape their feelings and behaviors.

31.2 Review of Literature

A. Relationship Between HRDM Practices and OCB

OCB is constantly defined as positive individual behavior that reflects effort beyond normal job description and generally not required and directly recognized by employment contract [9]. In discussing the motivational source of OCB, Organ [9] insisted that justice perceptions are the best basis in explaining and promoting OCB. According to the review of Organ [15], through the lens of Social Exchange Theory, employees might exhibit OCB as a respond or to reciprocate to the fair treatment received from their organizations. In recent time, increases in workforce diversity due to globalization of business trends have encouraged organization to manage diversity [16]. Thus, organization must play an essential role in managing

diversity through its proactive policy in reducing inequalities as well as to attract, develop, retain, and motivate diverse workforces.

Predictably, when organization promotes equality and fairness, their employees are predicted to engage in exchange relationships and become more committed in their job. As such, employees are predicted to support their organization's diversity initiatives when they perceived or experienced fairness policies and procedures [16, 17]. In addition to that, Colquitt et al. [18] pointed out that perceived fairness or organizational justice strongly fostered employees' attitudes and behaviors such as OCB. A recent study by Shen et al. [19] has also examined the direct relationship between HRDM practices and OCB. Generally, they found that there is a positive relationship between certain HRDM practices and OCB. For example, study by Shen et al. [19] stressed on four salient HRDM practices, that is, recruitment and selection diversity management, training and development diversity management, performance appraisal diversity management, and compensation diversity management. The findings of their study suggest that HRDM practices designed by the organizations should be free from bias in all human resource functions and must consider diversity. As Shen et al. [14] pointed out, these motivational approaches may lead to positive work behavior among diverse employees such as OCB.

In contrast to these earlier studies, the current study will be different as it focused on five HRDM practices in investigating the relationship between HRDM practices and employees' citizenship behavior. The main objective of the current study was to identify variables that might enhance employees' OCBs (OCBI and OCBO). For that reason, current study was correlational in nature. In fact, when employees experienced motivating relationships, they will feel obliged to respond with good behavior such as engaging more on OCB [9, 15]. On the basis of the above discussion, it is expected that each individual HRDM practices, including recruitment and selection diversity management, training and development diversity management, performance appraisal diversity management, compensation diversity management, and career advancement diversity management, must be positively connected with OCB (OCBI and OCBO).

Recruitment and selection are two important activities in human resource management field. Both processes are deemed to be important and must be included in human resource activities. This is because workforces as core resources need to be managed and used properly. According to Shen et al. [19], an organization must practice fair recruitment and selection process. As so, by considering diversity, these processes must be free from discrimination issues. In addition, a positive approach in managing diversity might facilitate organization to choose and select the right person for the job. For instance, age, gender, disability, and race play no part in the recruitment and selection process. In addition to that, these approaches will make organization seen to be as a motivational and progressive place to work by diverse workforces [20]. According to D'Netto and Sohal [12], organization will become more harmonious when diversity is appreciated. This situation may attract people from diverse labor markets.

Training and development is the process which is concerned with organizational activities such as strategies, tools, and also procedures designed aimed at enhancing

the ability, capability, and performance of organizational workforces [21]. Additionally, Amirtharaj et al. [22] verified that effectively managed training and development programs might contribute to the growth and survival of the organization. Moreover, they added that effective training and development programs may overcome organizational problems and have a greater impact on employees' attitudes and behaviors [22]. From diverse workforces' perspective, effective training and development programs will overcome group differences problems, enhancing respect among diverse employees, and definitely may encourage positive work behaviors [12]. According to D'Netto et al. [23], the implementation of diversity awareness training program shows that the organization appreciated and recognized the contribution of the minorities. Indirectly, this positive approach may lead to positive work behaviors [24].

From diversity management perspective, Schuler et al. [25] insisted that the performance appraisal process must be objective, job related, and fair to all employees in the organization. In ensuring objective and fair appraisal process, organization can practice, for example, by including diverse representatives on appraisal team [12]. However, the exclusion of minorities in performance appraisal process may create tension and may lead to the discrimination issues [23]. Therefore, D'Netto et al. [23] verified that such failure in practicing effective HRDM practices in performance appraisal process may negatively affect employees' feeling towards the organization. Hence, effectively managed performance appraisal process may lead to improvement of employees' work behaviors [12].

In organizational context, compensation is commonly used as a motivational factor in rewarding employees [26]. However, this process is a crucial segment to be controlled by the organization for rewarding employees who perform jobs or services. Besides, this process is frequently viewed as monetary and nonmonetary rewards [27]. Empirically, past research suggests that fair practices in compensation process may lead to effective diversity management and organizational performance [23]. Furthermore, performance-based pay and equitable pay practices are crucial in compensation diversity management. According to D'Netto et al. [23], organization should consider individual differences in designing the compensation structure. Sturman [28] suggested that practitioners such as hoteliers need to design fair and good compensation system because indirectly it would affect employees' motivation and work behaviors such as OCB. This practice also helps the organization by attracting and retaining their best employees.

Career advancement is the process used by the organization in assisting employees' growth and expansion in their career path [21]. Within organization, the inclusion of fairness and equal employment opportunities in managing its diverse workforces is also very important. According to Ruggless [29], an organization should recognize the talents of minority employees and develop career advancement opportunities to those qualified nonmainstream employees. As such, negative stereotype assumption on minority employees should be overcome. As suggested by Fernandez [30], positive efforts need to be done by organization in order to attract more diverse workforces talents including minority employees and also viewed as a practical career preference. Generally, workforce diversity
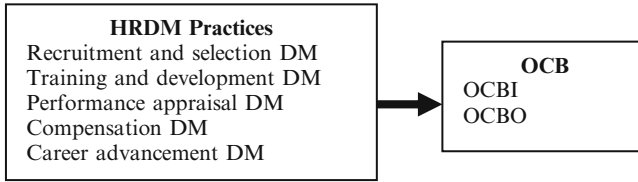
Fig. 31.1 Researchers' proposed model

increases the possibility of discrimination issue among employees. According to Richard and Kirby [31], human resource practices regarding career advancement must reflect diversity issues in order to overcome negative perceptions from diverse employees. Thus, such failure in providing a career development plan for diverse employees would negatively affect their motivation, morale, creativity, innovation, and performance [13, 32, 33].

Based on the preceding discussion, a framework is proposed as depicted in Fig. 31.1. To conceptualize the relationship between HRDM practices and OCB (OCBI and OCBO), Social Exchange Theory [34] will be used. It is reasonable to assume that employees might have the tendency to become more committed when they believe that their organization supports equity and fairness. Subsequently, employees reciprocate their perceptions accordingly through positive attitudes and behaviors to the organization, which in turn enhance their willingness to engage in high level of OCB.

Based on the above discussion, the following hypothesis may be inferred:

H1: Employees' perceptions of organization's HRDM practices will have a positive relationship on OCBI.
H2: Employees' perceptions of organization's HRDM practices will have a positive relationship on OCBO.

31.3 Methods

This study is cross-sectional in nature. The subjects were full-time operational employees employed by identified star-rated hotels located in the north of Peninsular Malaysia. The researchers obtained consent from the human resource managers to access the potential respondents. This study has employed a convenience sampling method in selecting respondents. Additionally, self-administered questionnaires were used for the data collection. The researchers have also explained the objectives of the study and respondents were guaranteed of confidentiality. Totally, 150 respondents took part in the survey. The questionnaires used in this study consisted of three sections. The first section sought to collect demographic information such as respondent's age, gender, marital status, ethnicity, nationality, department attached to, job tenure, industry tenure, and academic qualification. In

the second section, data for the independent variable were collected using the HRDM practices questionnaires [12, 19, 21]. OCB (the dependent variable) was measured using the OCB questionnaire [35]. The wording of the items for all study variables was adapted to accommodate the context of the present study. Seven-point Likert scale was used on all items. The hypotheses were tested by using multiple regression analysis.

31.4   Data Analysis and Results

The data showed that the mean age of the respondents in this study was 31.13 years (SD = 6.57), the age range between 19 and 52 years. Thus, it can be said that respondents in this study were relatively young. This is expected as the job category of focus was the operational-level employees. In this study, 44.7 % of the respondents were male and 55.3 % were female. Hospitality literatures reported that operational job positions in the hotel industry were highly diverse and comprised of individuals who are young, possess lower academic qualification, and are highly represented by women and minorities [36, 37]. 38.7 % of the respondents were single, 54.7 % were married, and 6.7 % were others. In addition, 60.0 % of the respondents had secondary-level education. The remaining respondents (40.0 %) had a certificate, diploma, or other qualification. The data also showed that the respondents were represented by the seven operational departments, namely, front office (24.7 %), food production (19.3 %), administration (15.3 %), housekeeping (16.7 %), maintenance (11.3 %), marketing/sales (6.7 %), and others (6.0 %). Regarding organizational tenure, the range was from 1 to 20 years with the mean value of 5.91 years (SD = 3.79). In terms of industry tenure, the range was from 1 to 20 years with the mean value of 6.66 years (SD = 4.15). Based on the data, the majority of the respondents were Malaysian (89.3 %). The remaining 10.7 % were from Indonesia, Myanmar, and the Philippines. Regarding ethnicity, the majority of the respondents were Malays (56.0 %), followed by Chinese (22.7 %), Indians (10.0 %), and others (11.3 %).

Table 31.1 shows the findings for the means, standard deviations, reliabilities, and the intercorrelation matrix. Analysis of the intercorrelation matrix indicates that none of the correlations are above .70, and hence, the problem of multicollinearity is quite low [38]. All correlations were significant and in the predicted direction. Cronbach's alpha coefficients ranged from .78 to .91, revealing reasonably strong internal consistency for all variables, and are sufficient for use [38]. The means scores of five HRDM practices ranged from 4.93 to 5.54, showing a high level of perceived effectiveness of HRDM practices. Similarly, the level of OCB experienced by respondents was also high. From the results, the mean on OCBI and OCBO was 5.55 and 5.58, respectively.

To test whether HRDM practices influence OCB, multiple regression analyses were done. Linear regression rests on four assumptions: normality, linearity, independence, and homoscedasticity [39]. Evaluation of assumptions of linearity,

Table 31.1 Means, standard deviations, reliabilities, and intercorrelation matrix

Variables	Mean	SD	1	2	3	4	5	6	7
1. Recruitment and selection	4.93	1.24	(.89)						
2. Training and development	5.27	.84	.29**	(.78)					
3. Performance appraisal	5.35	.93	.37**	.57**	(.82)				
4. Compensation	5.49	1.11	.42**	.39**	.54**	(.88)			
5. Career advancement	5.54	.73	.35**	.51**	.59**	.59**	(.84)		
6. OCBI	5.55	.81	.34**	.45**	.36*	.40**	.43**	(.88)	
7. OCBO	5.58	.78	.40**	.48**	.42**	.57**	.52**	.61**	(.91)

Note. $N = 150$, $*p < .05$, $**p < .01$

Alpha coefficients for the dependent variable and predictors are on the diagonal in parentheses

Table 31.2 Multiple regression

	OCBI		OCBO	
Predictors	*Std. β*	*Sig.*	*Std. β*	*Sig.*
HRDM practices				
Recruitment and selection DM	.15	.00	.14	.00
Training and development DM	.27	.00	.24	.00
Performance appraisal DM	−.02	.86	−.63	.53
Compensation DM	.15	.11	.35	.00
Career advancement DM	.16	.12	.15	.00
R^2	.29		.43	
Adj. R^2	.27		.41	
F value	11.85		22.08	

normality, independence of error terms, and homoscedasticity revealed no significant violation of assumptions was found. The results of regressing the independent variables against the two facets of OCB can be seen in Table 31.2. As can be seen, of the five HRDM practices, recruitment and selection diversity management ($\beta = .15$, $p < .01$) and training and development diversity management ($\beta = .27$, $p < .01$) significantly contributed to the prediction of respondents' OCBI. Since only two of the five HRDM practices were found to significantly and positively influence OCBI, it can be said that hypothesis 1 is partially supported. Meanwhile, of the five HRDM practices, recruitment and selection diversity management ($\beta = .14$, $p < .01$), training and development diversity management ($\beta = .24$, $p < .01$), compensation diversity management ($\beta = .35$, $p < .01$), and career advancement diversity management ($\beta = .15$, $p < .01$) significantly contributed to the prediction of respondents' OCBO. Since only four of the five HRDM practices were found to significantly and positively influence OCBO, it can be said that hypothesis 2 is partially supported.

31.5 Discussion and Conclusions

Our study explored the relationship between perceived HRDM practices and two facet of OCB (OCBI and OCBO). The results show that, in general, perceived HRDM practices are significantly and positively related to OCB. The study is in line with the findings of Shen et al. [19]. Particularly, the results of the study showed that training and development diversity management is the strongest predictors and positively associated with respondents' OCBI. Likewise, we found that recruitment and selection diversity management is significantly related with respondents' OCBI. In term of respondents' OCBO, compensation diversity management was found to be the strongest predictors. Similarly, training and development diversity management, career advancement diversity management, and recruitment and selection diversity management were also found to be positively

and significantly related to respondents' OCBO. Generally, the findings of our study reveal that when respondents perceived fair and effective HRDM practices in the area of recruitment and selection diversity management, training and development diversity management, compensation diversity management, and career advancement diversity management, employees are likely to reciprocate it through high level of OCB. Based on the earlier findings, employees might reciprocate by engaging more on OCB when they perceived justice from the fair treatment they have received from the organization [9, 15] and will be benefiting the organization [19]. Thus, the adoption of HRDM practices is likely to perceive by workforces as an effort by the organizations towards potential factors in encouraging positive employees' citizenship behaviors and attitudes. However, further research will be required to shed greater light on the possible causal relationships between these variables. These findings were also consistent with the Social Exchange Theory that proposes a mechanism in explaining the attitudes and performance in employment relationship. Hence, drawing from social exchange relationship [34] and the norm of reciprocity [40] as a central theme, the presence of HRDM practices signals care and concern towards employees' well-being and development which may induce employees to reciprocate by enhancing their positive display of extra-role behaviors such as OCB.

Within the context of this study, employees' perceptions and expectations of their employers' commitment and support towards them (manifested through HRDM practices) shaped their feelings about the organization. According to Shen et al. [19], HRDM practices are designed particularly to utilize diversity and free from bias in all human resource functions as well as appreciate the role of employees. Additionally, the objective of HRDM practices is to treat employees equally and fairly [19]. Subsequently, employees reciprocate their perceptions accordingly through positive attitudes and behaviors to the organization, which in turn enhance their willingness to engage in high level of OCB. However, future research needs to reconfirm the present findings before we can accomplish a solid conclusion. According to Shen et al. [19], the relationship between certain HRDM practices and OCB may vary significantly across national and cultural context. Furthermore, from practical perspectives, the findings from this study propose that policy makers and hotel practitioners should continue to place and develop greater emphasis on HRDM practices in order to enhance employees' attitudes and citizenship behavior. The results will benefit the organization to gain better understanding of the usefulness of HRDM programs in their industry.

As noted, business organizations are continuously focusing to improve their performance by altering employees' attitudes and behavior. The constructive relationship between HRDM practices and OCB has made HRDM practices as a significant factor for enhancing both employee and organizational performances [19]. Several limitations constrain the interpretation and applications of the study's findings. The intentions of this study to explore the relationship between perceived HRDM practices and respondents' OCB among operational employees from one industry limit the finding's generalization. Future studies may use a wider range of employees at different industries. Furthermore, the reader is cautioned to recognize

the restrictions of relying on self-reported data, which may carry a bias of general method variance.

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Chapter 32
Shareholder Activism in Malaysia: Exploring a Missing Parameter

Sarina Othman and William G. Borges

Abstract The topic of shareholder activism has become an important issue for discussion in the corporate world, and debate continues to exist with regard to this matter. In the corporate world, the minority shareholders are the least protected corporate participants, due to their minimal voice in corporate decision-making. This paper is not empirically based but merely conceptual. Therefore, it is aimed at presenting the preliminary work for a study. The concepts of corporate governance, ownership structure and control, shareholder-companies relationship and majority-minority shareholders relationship are discussed, in order to gain an understanding of the concept and some practical perspectives of shareholder activism. From the discussion, several missing parameters of shareholder activism were derived. These missing parameters are considered red flags; there is a dire need to conduct further research for a better understanding of this important topic.

32.1 Introduction

Inasmuch as shareholders are the owners of companies, they should be given the opportunity to actively communicate and be involved in decision-making. An active investor monitors the management, may be part of the boards and sometimes is involved in the strategic management of the company [1]. The occurrence of these activities in the company signals whether effective corporate governance exists. Having effective corporate governance assists management in better running the corporation, and thus promotes a vigilant oversight function by the board of directors, and encourages shareholders to take an active role in monitoring their corporations. Active participation and responsible actions by shareholders are critical to effective market discipline and upholding a corporate governance culture. Academically, various scholars have agreed that one of the ways to promote healthy

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corporate governance is by way of protecting the shareholders [2–4]. Therefore, the concept of shareholder activism has become a top issue discussed in the corporate world, and debate continues to exist with regard to this matter. In the corporate world, the minority shareholders are the least protected corporate participants, due to their limited voice in corporate decision-making. However, nowadays, many platforms have been provided to protect shareholders in exercising their rights and playing their roles in promoting good governance practices in their corporations.

In Malaysia, one of the platforms in which shareholders, especially minority shareholders, use to express dissatisfaction is through the Minority Shareholders Watchdog Group (MSWG). The MSWG was established as part of the government initiative in the year 2000 with the aim of protecting the interests of minority shareholders through shareholder activism. It is one of the many great efforts to encourage good governance among publicly listed companies in Malaysia, providing hope that, over time, shareholder value will increase.

In this regard, minority shareholders are seen to play a critical role in the governance and overall success of a company and in the development and sustainability of capital markets as a whole. In countries with weak institutions, the role of the minority shareholders has become so much more important; therefore, more effort is needed to protect their rights [5]. One of the ways to do this is by having a good corporate governance system. However, in view of the Malaysian culture, it does promote the concept of power distance, and as such, minority shareholders usually do not think it is wise to question the decision of the majority shareholder, especially if the majority shareholder is affiliated with a prominent politician or royalty [6]. Given this, MSWG was established as part of the effort to enhance awareness among minority shareholders of their rights to search for more information, voice out their opinions and seek to fix the situation [7]. Its establishment is somewhat a reflection of the culture of the society that shapes the way in which the shareholders being part of the society accept the inequality of power and prefer to work in a group rather than pursuing an individual action [8]. Hence, a watchdog like MSWG would facilitate the minority shareholder in the process of voicing out their dissatisfaction and confront with the management of the corporation when needed [6, 8, 9]. In an effort to protect minority shareholders, MSWG has developed a system called the AGM and EGM, monitoring activities in which it monitors, yearly, the activities of the publicly listed companies in Malaysia, through their meetings.

Since MSWG is regarded as a proxy to the minority shareholders, upon request, MSWG will target the firms by writing a query letter to the targeted companies in order to seek clarification about any issues raised. Some of the issues are financial-related, governance-related or related-party transactions that urge these companies to provide answer to these questions in the general meetings [7, 9]. On the basis of fiduciary duties that the board of directors owes, upon receiving such a letter, the company should make an effort to respond to the questions. Although this can be considered as part of the basic communication process, somehow, the process is distorted and some problems arise that eventually portray the weakness of the query-and-reply system. The weakness of the system may be a red flag, implying

a defect in the agency relationship, particularly related to shareholder activism. Problems with shareholder activism may have a significant impact on the protection of the minority shareholders in the corporate governance system as a whole.

32.2   Literature Review

A. *Corporate Governance and Shareholders*

The concept of corporate governance has been defined differently across disciplines. Corporate governance mostly is defined based on the structure and the role of the board of directors, shareholders' right and the engagement of the shareholder in making a decision [10]. One good example of this was the one proposed by the High Level Finance Committee Report on Corporate Governance where corporate governance is defined as "the process and structure used to direct and manage the business and affairs of the company towards enhancing business prosperity and corporate accountability with the ultimate objective of realizing long-term shareholder value whilst taking into account the interest of other stakeholders" [11].

On the other hand, others have viewed the definition and concept of corporate governance from a wider perspective while at the same time emphasizing the ownership and control elements as suggested by Cadbury [12], Monks and Minow [13] and the High Level Finance Committee Report, where the degree of good enforcement of corporate governance very much depends on the role of the state [14]. Additionally, from the stakeholders' view, corporate governance is regarded as a means by which this group of interested people exert control over the corporation by exercising certain rights within the scope of jurisdiction [15]. In the case of minority shareholders, they can be considered one of those interested groups that can exercise rights under certain laws and regulations. Broadly defined, corporate governance embraces the effective monitoring of all external and internal control mechanisms that eventually inspire corporate executives to make decisions that will help to enhance the value of the firm and the wealth of the stakeholders [16].

The serious complication of the relationship between the corporate governance participants, especially the managers and the board of directors with the respective shareholders, and the concept of mutual agreement of interest should be considered [17]. In this light, it is suggested that reintegration of conflicts of interest between various corporate officers and the investors are important concerns in corporate governance [18].

B. Ownership Structure and Control

It is noted that governance practices differ not only across countries but also across firms and industry sectors. Accordingly, some countries' corporations are owned with managers firmly in control, while other countries' corporations have concentrated ownership, and in others are labour-oriented kinds of firms [19]. Therefore, the ownership and control of the firms has become one of the most evident differences in corporate governance system across countries. In this view, some systems are characterised by a wide dispersed ownership (outsider systems), while others are to be characterised by concentrated ownership or control (insider systems) [20]. However, Malaysia and most Asian countries are characterised by concentrated shareholding [21]. In the concentrated shareholding system, it is expected that the board of directors and the market for corporate control are likely to be weak, and this eventually leads to the expropriation of minority shareholders [22, 23]. Hence, ownership concentrate could influence expropriation of minority shareholders' rights [24]. This concentrated ownership, together with ineffective external governance mechanisms, will endanger the corporate governance system, in which frequent conflicts between controlling shareholders and minority shareholders are likely to escalate [25].

In light of ownership structure and control, it is evident from the previous studies that most of the companies across countries are under the concentrated ownership, which suggests a significant impact on its governance [22]. Ownership structure is a kind of reflection of an agency problem, indicating whether the conflict is between the managers and shareholders or between controlling and minority shareholders [26]. The ownership structure does have a significant impact on the governance of the corporation, both from a financial perspective [27, 28] and a socio-psychology perspective [29]. Hence, due to the many significant roles of the ownership structure, the debate as to the impact it has on corporate governance continues.

Furthermore, in the case of firms characterised by a significant degree of separation of ownership from control, there is an ever-present danger that executives may develop priorities and/or preferences that differ from those of shareholders [16]. In support of this view, a study was conducted in 1999 examining how controlling shareholders' actions suppress the minority shareholders in the nine East Asian countries (including Malaysia), and the results show that Malaysia is one of the countries that fall into a category where expropriation of these minority shareholders is likely to happen [30]. Consistent with this ownership structure scenario, Malaysian companies are claimed to include many salient shareholders, such as the government (government-controlled companies), institutional shareholders and families, which cause the minority shareholders to have little or no influence over a managerial decision-making [9]. Hence, there is a tendency that the voice of minority shareholders will be ignored or treated as unimportant. Thus, given the problems caused by these ownership structures, a new mechanism for enhancing protection of the minority shareholder in Malaysia seems necessary.

C. Shareholders and a Company: The Relationship

Power distribution in a corporation relies on three critical anchorpersons, i.e. the shareholders, management and the board of directors [17]. The effective interaction between these three critical anchors of corporate governance is critical to the success of governance. Such interaction helps in portraying a good governance system that provides a powerful set of checks and balances. The absence of this can cause a company to become dangerously unbalanced [17].

The relationship between shareholders and managers is a long-standing topic of debate and is a critical governance issue in the corporate arena. Ever since the existence of corporations, there individuals from various platforms have quarrelled about this issue. From a financial perspective, through a renowned agency theory, the relationship between the board of directors and shareholders is regarded as the agent and principal relationship [31]. The agency relationship from this perspective is then further defined as "a contract under which one or more persons (the principal (s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent". Moreover, organisational theorists have examined the role of corporate boards from many different perspectives, such as the *agency theory* and *resource dependence theory* [32]. Consistent with this view, it should be noted that a board of directors has a fiduciary obligation to shareholders, which includes the responsibility to hire, fire, compensate and monitor top management for the betterment of the corporation [33]. Clearly, shareholders are the owners; they have an interest and a right to engage with corporations in order to optimise long-term or short-term shareholder value, while corporate directors have a duty to act in the best interest of these shareholders [34].

Discussion on the relationship between shareholders and companies has led to a conclusion that shareholders, having entrusted their assets with someone, i.e. the agent who acts as their fiduciary, face control vulnerability and information vulnerability [35]. In relation to information vulnerability, the firm executives, as managers and directors, have access to information about the shareholders' situation, of which the shareholders may be unaware. Additionally, share ownership not only creates a fiduciary responsibility on the part of managers; it also creates an obligation to act morally and ethically as managers perform their duties as agents of the firm's owners, namely, the firm's shareholders.

On the contrary, in the context of law, it was claimed that there is no such thing as the principal and agent relationship between the board of directors and shareholders [36]. This is due, they insist, to the fact that a corporation is a separate legal entity—implying that in law, the principal is the corporation itself. The relationship that exists between board of directors and the shareholders is merely a contract. In view of this, it is fair to claim that to be successful in corporate governance, there should be a balance between the directors and those who safeguard those directors such as legal and regulatory authorities, auditors, shareholders or the stake-supervisory authorities [37].

D. The Concept of Shareholder Activism

The term shareholder denotes a legal person (including either an individual or corporate entity) who holds shares in a particular company and who may be either a registered member of the company or is otherwise beneficially entitled to the shares [38]. The Organisation for Economic Co-operation and Development (OECD) Principles of Corporate Governance has stated clearly several specific principles with the aim of increasing the protection of shareholders from various angles of corporations' activities [39]. Meanwhile the International Corporate Governance Network (ICGN), through its revised Global Corporate Governance Principles, has highlighted the roles of the boards in achieving the aspiration of the OECD [40].

The past few decades have seen an increase in demands for better corporate governance and improved performance by board of directors. However, the corporate world has experienced a surge in social regulations, as various "stakeholder" groups have organised themselves into powerful pressure groups [41]. It is also noted that shareholders at all levels, from institutional investors to individual minority shareholders, are developing activist strategies to take greater control over the corporations as well [42–44]. The role played by the minority shareholders in developed as well as developing economies is considered crucial. A few incidents—such as massive asset stripping during the Russian privatisation, the 1997 financial crisis in Asia and the limited ability of family-owned firms in the Middle East and Latin America to attract investment—have shown to the world the effect of deserting minority shareholders as oversight mechanisms [5].

Shareholder activism is then defined as "the use of ownership position to actively influence company policy and practice" [34, 45]. Similarly, activities undertaken by shareholders in connection with struggles between public companies and owners are often referred to (almost interchangeably) as shareholder activism or corporate governance activities [46]. In Malaysia, the level of investor protection is low, suggesting that less protection is given to the minority shareholders in the event of corporate misconduct [47]. It has also been observed that shareholder activism in Malaysia is, comparatively, a new concept, and relatively uncommon in practice, especially among individual minority shareholders [48, 49]. Due to the complexity of the firm ownership structure and cultural orientation, MSWG was established in Malaysia as a means of boosting the protection of minority shareholders.

The Malaysian market is one of the emerging markets in the region where the establishment of Minority Shareholders' Watchdog Group (MSWG) is regarded as crucial and beneficial [7]. MSWG was funded by four founding organisations, the Armed Forces Fund Board (Lembaga Tabung Angkatan Tentera), the National Equity Corporation (Permodalan Nasional Berhad), the Social Security Organisation (Pertubuhan Keselamatan Sosial) and the Pilgrimage Board (Lembaga Tabung Haji).

As stated previously in this paper, the MSWG was established to help the minority shareholders to be more aware of their rights. The existence of MSWG is unique in the emerging markets, where a conservative and collectivist culture prevails in societies [6, 8]. Hence, the existence of this watchdog is essential as a platform for shareholders' concerns to be raised, in order to control managerial moral hazards and expropriation [7].

Shareholder activism is regarded as important due to the many benefits it brings, especially in leveraging the protection of minority shareholders and the other stakeholders groups in the company at large. Accordingly, shareholder activism is viewed by many researchers as a key aspect of corporate governance in the effort to identify strategic opportunities pertaining to shareholder empowerment [50–52]. By the same token, a previous study on the antecedents of shareholder activism in a few targeted firms in the United States, the United Kingdom, Australia, Germany, Japan and South Korea, identified two main motives for shareholder activism, i.e. to improve financial performance and to improve the social performance of the firm [45]. Similarly, a few scholars have also regarded shareholder activism as one of the external control mechanisms that act as a secondary governance mechanism in cases of poor internal governance [33, 49].

In Malaysia, there have been numerous efforts by the regulatory bodies and other groups to increase the shareholders' participation in the ecosystem of corporate governance. These various efforts have been made with the goals of protecting minority shareholders [6]. As far as shareholders' participation is concerned, previous research has documented that any form of shareholder activism or engagement has generally influenced the performance of the firm [9]. In this regard, shareholder activism can be seen as one of the best means to fulfil shareholders' intentions.

Additionally, in the context of shareholder activism approaches, shareholder activism can be exercised in numerous ways out of dissatisfaction and unhappiness feeling of the shareholders towards corporate governance. At one end, shareholders can sell their shares or express their views on corporation's performance and even start to initiate a takeover [33, 53]. On the other hand, some shareholders prefer to do some changes to the company through several actions such as engaging and negotiating with the board of directors privately or by submitting proposals for shareholder votes [54]. Additionally, the minority shareholders as decision-makers will collect data that they may be interested in from the outside world and analyse it as part of the monitoring activities [55]. This approach of monitoring involves any type of corrective action including exit, takeover and voice as stated previously in this section. As such, involvement and corrective action should come from the institutional or other retail or individual investors as well [42].

Parallel to the meanings of shareholder activism as stated in the previous section, shareholder activism is thus depicted in various means and actions. As such, shareholder activism can be exerted through letter writing, through dialogue with corporate management or the board, through asking questions at open sessions at annual general meetings and through the filing of formal shareholder proposals [34].

E. Corporate Responses to Shareholders

In the corporate context, the individuals with power are directors [36]. Shareholders may have indirect power or influence, but they have several restrictions that contribute to their powerlessness in some corporate events. Due to this arrangement, the board is seen to have a fiduciary duty to the shareholders in many ways, including responding to shareholders' questions and concerns.

In view of responding to shareholders concern, the attitude of engagement is classified into three different types, namely, confrontational, mixed and collaborative [2]. The attitude of engagements was ranked using a score from 1 (totally collaborative) to 10 (very confrontational). These means and methods are then called shareholder engagement. However, interesting questions arise here, as to how to show or conclude any reluctant and grudging management behaviour or decisions for confrontations and why such decisions were made. As such, there is a need for a specific investigation to be carried out in order to find the answer to these two questions. Hence, the adoption of a qualitative method in a study might be the best way to achieve this goal.

Additionally, as shareholder votes appear as one of the crucial governance mechanisms in corporations, understanding boards' responses to them has become a critical issue [56]. In a more recent study conducted with the aim of understanding the corporate response towards shareholder activists' demands, several factors or drivers that led to corporate responses to demands of shareholder activists were identified [57]. The study concluded that the responsiveness of managers to shareholders' proposals is an important element in understanding the relationship between shareholders and companies [58]. Moreover, this study had identified some drivers of corporate responses to shareholder activists and proposed engagement in dialogue as one of the possible corporate responses. Using a theory allowing four possible responses, the firm responses to the activist shareholders were divided accordingly: (1) omission of the resolution, (2) let a resolution go for the vote, (3) acquiescence/acceptance to the activist shareholders' request and (4) offer to engage in dialogue with the activist shareholder. Hence, this recent empirical study has shed some light on the effort of many to understand corporate responses in dealing with the shareholder proposals, grievances and concerns of the shareholders, including the minority shareholders. However, one part that is missing here involves the reasons behind such responses from the perspective of the soft side of the human internal drive—that is, prioritisation and intuition. The missing piece here obviously is related to the human side of those in a position to respond. Usually, it is the board of directors, the agent, which acts on behalf of the corporation. Apparently, it was also noted that in a few given circumstances, the management may not have the ability to respond substantively to the challenges, due to limited capacity and insufficient time to plan and execute such substantive response [59].

32.3 The Missing Parameter

From the earlier literature, gaps related to shareholder activism and directors' responses are identified. In response to the research carried out on shareholder activism, there is a shortage of empirical studies on such activism other than in the US, including Malaysia [9]. Additionally, it was proposed that the effectiveness of the MSWG or shareholder activism should further be explored from a qualitative point of view rather than just relying on quantitative-based kind of research that was carried out so far [9]. Interviewing the minority shareholders or the board of directors in gaining more insights to further increase the protection of the minority can be considered.

A few previous studies focused on the idea that shareholder activism has little effect on firm performance [2, 7, 9]. Methodologically, the research was carried out objectively and in a positivistic manner, so as to allow the results to follow the proposition proposed. However, the results may also be viewed by using a different lens that enables one to explain the reasons for such results obtained. In other words, a research study targeted on the "why" question is needed. As noted, a behavioural study which relies on responses and actions alone is nearly impossible, regardless of which scale or financial measure is used. Instead, in our view, a qualitative approach should be adopted to investigate the reasons for firms' behaviour in response to shareholder activism. In support of this view, a very recent article on shareholder activism has also highlighted on the need for the inclusion of more than one level of analysis (multilevel) in shareholder activism studies that eventually provide a more informative, meaningful and holistic research outcome [60].

32.4 Conclusions

We began this study because of our concern that there is a need for a deeper understanding of the extent of shareholder involvement and activism, especially in Malaysia. We sought to determine whether sufficient scholarship exists in this area of study. We found that many important studies have contributed insights concerning elements of the shareholder-company relationship—including those on corporate governance, company controls and corporate participation—but that they represent only the beginning of what should be a long road to understanding this fascinating relationship. As noted in our study, some efforts by interest groups, and governments, have paved the way for the public legitimacy of shareholder empowerment, especially in Malaysia. And even though a strong relationship between shareholder activism and the behaviour of companies has not been clearly demonstrated, there is a strong reason to believe that this trend will change over time. This is because of the aforementioned efforts by interest groups and governments, as well as unrest by the public—which, in recent years, has acquired a far greater share of companies' holdings than in decades past. Still, despite significant research and

hypotheses concerning shareholder issues, specific studies on the relationship between minority shareholders and companies remain very limited. So this is a good time for further studies to begin. We hope that this paper will inspire such efforts.

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Chapter 33
Linking Superior Influence, Peer Influence, and Locus of Control to Ethical Behavior: A Conceptual Model

Nusrah Samat, Noormala Amir Ishak, and Aizzat Mohd. Nasurdin

Abstract Ethical behavior among employees is a key component of long-term success for private as well as public enterprises. The rise in the number of unethical practices has necessitated the need for studies on ethical behavior. Local studies in this topic are limited. Many scholars have suggested that organizational and personal factors are important determinants of workers' ethical behavior. Hence, an understanding of these factors is important in cultivating ethical behavior. This paper aims to review the literature and proposed a model linking organizationally related variables (superior influence and peer influence) and one personally related variable (locus of control) and ethical behavior. Both proposed methodology and expected outcome were discussed.

Keywords Ethics • Ethical behavior • Superior influence • Peer influence • Locus of control

33.1 Introduction

Due to the effect of ethical behavior on the organizations as well as individuals who work within them, many researchers [1–3] concluded that ethical behavior plays a vital role in the success of an organization. Specifically, this form of behavior has been found to be positively associated with a firm's financial performance and its

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employees' attitudes [4, 5]. On the other hand, unethical behaviors performed by workers have dysfunctional repercussions on organizations. Employees who steal and cheat at the workplace are bound to increase their employers' financial losses. Among the large corporations that have collapsed due to unethical practices include Enron, WorldCom, Tyco International [6, 7], K-mart, and Martha Stewart [8]. With the growing realization that the world is experiencing an ethical crisis due to the rise in the number of unethical acts such as bribes, fraud, extortion, favoritism, and nepotism, an increasing number of studies have been conducted concerning ethical behavior. These studies include investigations on its predictors [9–13], its consequences [7, 14, 15], and its importance [16]. Additionally, the issue of ethical decision making and ethical behavior has become a concern in many areas including accounting [17], hotel industry [18], hospitals [1, 3], and marketing and sales [9, 11, 16].

33.2   The Issue of Ethics in Malaysia

The issue of ethical behavior in Malaysia has been frequently reported in the news. For instance, a general manager of the police cooperative was charged with criminal breach of trust involving RM96,000.00 on 12 July 2005 [19]. Similarly, the former Chief Secretary of Suburban Development Ministry was found guilty on 11 November 2005 for fraud and breach of trust on the Poor People Development Program involving RM11 million [20]. In another case, a former bank officer was sentenced to 5 years in jail and ordered to receive two lashes after the Sessions Court found him guilty of criminal breach of trust involving RM498,500.00 [21]. Furthermore, a medical practitioner has been convicted under the Anti-Money Laundering Act 2001 (AMLA) for eight charges involving RM41.3 million. She was sentenced to 38 years in prison and fined RM6, 394,530.72 after found guilty of the offense [22]. Also, as reported by Jong et al. [23], a former marketing director of a company has been found guilty. For the offense of criminal breach of trust amounting to RM2 million, he was sentenced to prison for 8 years as well as whipping and a fine.

The Transparency International Corruption Perception Index (CPI) is a measure of the level of perceptions of the foreigners who work in this country (e.g., investors and foreign corporatists) concerning the extent of bribery existing in a particular country [24]. The higher the CPI score, the lower would be the foreigners' perceptions on the extent of bribes in the said country and vice versa. In the case of Malaysia, the score seems to fluctuate but remained moderate. For example, in 1995, the CPI score index for Malaysia was 5.28 compared to 5.10 a decade later (refer to Table 33.1). The score keeps on increasing from 4.3 in 2011 to 4.9 and 5.0 in 2012 and 2013, respectively. However, the score is still moderate and it seems to suggest that the ethical standards and integrity in this country are diminishing. This disheartening information seems to indicate the need for the government and other

Table 33.1 Malaysia corruption perception index (1995–2013)

Year	Rank	Number of countries being researched	CPI score index
1995	23	41	5.28
1996	26	54	5.32
1997	32	52	5.01
1998	29	85	5.30
1999	32	99	5.10
2000	36	90	4.80
2001	36	91	5.00
2002	33	102	4.90
2003	37	133	5.20
2004	39	146	5.00
2005	39	158	5.10
2006	44	163	5.00
2007	43	180	5.10
2008	47	180	5.10
2009	56	180	4.50
2010	56	178	4.40
2011	60	183	4.30
2012	54	174	4.90
2013	53	177	5.00

Source: http://www.transparency.org/policy_research/surveys_indices/cpi/. Accessed on 23 January 2014

relevant authorities to seriously and judiciously address the issue of ethics and ethical behaviors in Malaysia.

33.3 Ethical Behavior Among Employees in the Malaysian Public Sector

Even though unethical behavior happens in all areas of society including business and government, much of ethics research has focused on private companies [9, 25–27]. One survey has showed that the organization that has the most instance of unethical behavior is the government [28]. However, little effort has been put in studying unethical behavior in public organizations. According to Abdullah et al. [29], many complaints have been made towards Malaysian public sector especially with regard to unethical behavior and corrupt practices among public employees. For example, the auditor general revealed that financial malpractices were rampant in local councils, whereby 13 officers were among the 252 civil servants that were arrested for corruption in 2005 [30]. On a similar note, the Royal Malaysian Police, being a law enforcement public agency, has received a lot of criticisms regarding the unethical acts performed by their personnel.

In order to overcome these negative public beliefs, public employees need to be ethical in their conduct. Realizing the need to mitigate misbehaviors and boost the image of the public sector, the government undertook a two-pronged program: first, cultivating ethical values among the public servants and, second, strengthening the work process so as to reduce the opportunity for corruption to occur. Following that, a special committee was formed, known as the Special Cabinet Committee on Government Management Integrity or in Malay it is called "Jawatankuasa Khas Kabinet Mengenai Keutuhan Pengurusan Kerajaan" (JKKMKPK). Additionally, the "Malaysian Code on Corporate Governance" (MCCG) has been introduced by the government to enhance the integrity in other sectors of the Malaysian economy. In enhancing the integrity in all sectors, the National Integrity Plan (NIP) has been launched on 23 April 2004. Along with that, the Institute Integrity of Malaysia (IIM) was formed in order to monitor and coordinate the Plan. Furthermore, given the increasing public concerns regarding the extent of misconduct, unethical behavior, and dishonesty amidst police personnel in the country, the government has established two commissions, namely, the Royal Commission and Independent Police Complaints and Misconduct Commission (IPCMC) to look into complaints against the police force.

From the preceding discussion, it can be surmised that ethical behavior is the key to organizational excellence. Therefore, an understanding of the determinants of ethical behavior is deemed fruitful since this exercise would enable organizations to cultivate ethical behavior among their employees. Hence, the objective of this paper is to review past literatures and propose a model on the determinants of ethical behavior with special emphasis on the public sector.

33.4   Review of the Literature

A. Ethics and the Ethical Behavior

Various definitions of ethics can be found in the literature. Taylor [31] defined ethics as the enquiry into the nature and background of morality whereby morality refers to judgments, standards, and rules of conduct. Similarly, Sherwin [32] viewed ethics as the set of moral principles/values that guide behavior. According to Kinicki and Williams [33], ethics is the values of what is right and what is wrong that can induce people's behavior. These values could be the same, and they may vary among countries and cultures. It relates with the fundamental human relationship, which is concerned about what is right and what is wrong [34–36]. In sum, ethics is the standard of right and wrong, which is used to determine which behaviors are ethical and which are not. Due to the different standards across cultures and countries, this standard plays the role in influencing individual's behavior.

Similarly, various definitions of ethical behavior have been put forth. Steiner [37] defined ethical behavior as "fair conduct and just above and beyond constitutional laws, which conforms to government regulations." Ethical behavior also can be described as individual behavior, which is shown to be objectively and morally correct [38] and legally and morally acceptable to the larger community [39] or can be accepted as right according to the ethical standards [33]. Hence, ethical behavior can be surmised as an individual's behavior that can be accepted morally and conform to the laws and regulations of either organization or community.

B. Determinants of Ethical Behavior

Playing the functional role in the organization, ethical behavior is positively associated with financial performance and employee attitudes [5], which is intrinsically valuable for the organization and those individuals who work within it. Similarly, highly ethical behavior can build relationships and reduce transaction costs between parties [40]. This is because managers form the link between the organization and its employees, shareholders, suppliers, and customers. Hence, ethical behavior should be fostered and encouraged [2].

Numerous predictors of ethical behavior have been revealed by past researchers. These predictors can be grouped into two main categories, namely, organizationally related factors and personally related factors. Both categories of factors have been widely reported to correlate with ethical behavior [9, 41–43]. Among the organizationally related variables that have been examined are referent group [44, 45], ethical climate [46–48], behavior of others [49, 50], managerial influence [51], rewards and sanctions [52, 53], method of compensation [12, 15], control system [15], codes of conduct or codes of ethics [44, 52, 54–56], organizational effects [44, 57], organization size [58, 59], organizational level [44, 55, 60], industry type [44, 61], and business competitiveness [52, 62]. Personally related variables have also received much attention as determinants of ethical behavior. These variables are those factors which involve individual's personal attributes, for example, religion [63, 64], age [6, 15, 58], ethical and legal perception [12], nationality [65, 66], tenure [6], sex and gender [6, 57, 64, 67], education and employment background [55, 58], Machiavellianism [13, 68], and locus of control [13, 52, 63, 69, 70].

Given that both organizationally related factors and personally related factors are equally important in predicting ethical behaviors, this paper aims to review the relevant literatures and subsequently propose a conceptual model linking two organizational elements (in the form of superior influence and peer influence) and one specific personal element (in the form of locus of control) and ethical behavior.

C. Organizational Influence on Ethical Behavior

According to Ferrel and Gresham [41], in an organization context, referent groups refer to an individual's superiors, peers, or significant others who influence the individual's decision making. Furthermore, Fang [71] argued that the most critical referent groups in workplace are superiors and coworkers. This supports the earlier argument by Lantos [72] that the behaviors of superiors as well as peers are crucial predictors of an organization's ethical culture. However, empirical findings on the effects of these two variables are rather divided [8]. The following discussion would relate to the influence of one's superiors and peers on one's ethical behavior.

D. Superior Influence

Managers are members of an organization who have been assigned by the organization to be responsible for achieving organizational objectives by influencing the people and systems within it. In other words, managers are the superior who can influence other people in the organization. The image exhibited by managers or superiors plays an important role for employees [73]. They act as role models, whereby they can enhance their employees' motivation and commitment at work. According to Zhu et al. [74], leaders who display ethical behaviors by doing what is morally right, just, and good will be able to help elevate the moral awareness and moral self-actualization of their followers. Besides, due to their power to dispense organizational rewards, managers would have control over their subordinates' behavior [75].

It was found that supervisors have a significant effect on their subordinates' ethical behavior [45, 51, 76] discovered. The reason for this relationship may be due to the fact that subordinates are more likely to look upon their supervisors as social models of acceptable behavior because of the amount of control they have as well as the respect subordinates may have on their supervisors [77]. This argument is also in tandem with the findings revealed by Hunt et al. [53], in which they found that actions taken by top managers can predict the ethical problems of marketing people. This is also parallel with the findings by Jones and Kavanagh [13], which later discovered that pressures from superiors can give a major impact on employees' unethical behavior. However, Jones and Kavanagh [13] could not prove the significant impact of managerial influence on subordinates' ethical behavior. One possible reason for this non-relationship may be attributed to the use of laboratory experiment. According to Jones and Kavanagh [13], in a laboratory setting, respondents were not able to experience real pressures, benefits, or consequences of their own behavior as opposed to the actual work setting in a field study. Nevertheless, Jackson [78] revealed that top management attitude influences a lower level managers' behavior in ethical decision making. Thus, the first proposition is as follows:

Proposition 1a Ethical behavior of superiors will have a positive effect on ethical behavior of employees.

E. Peer Influence

Reference Jones and Kavanagh [13] described peers as other people within the organization or lateral others in the field but employed by other organizations. Furthermore, peers set the standards and serve as reference for behavior. Such behavior as being assumed in the differential association model of criminal behavior is learnt through interaction with other persons who are parts of intimate personal groups [50]. It is also suggested by the differential association theory [79] that in order to change the employee's behavior patterns, efforts must be directed at changing the behavior and attitudes of the reference group of which the employee is a member. It is contended by Dubinsky and Ingram [62] that individual usually will make an effort to abide by his or her peers, which means they are motivated by their peers.

The result of a study by Izraeli [80] on ethical beliefs and behavior among managers showed that beliefs and perceptions concerning their peers' behavior are the best predictor of managerial ethical behavior. This finding provides support for the role of peer influence on the ethical behavior of employees. Similarly, the findings by Jones and Kavanagh [13] revealed that ethical behavior of one's peers significantly affects one's ethical behavior. Kantor and Weisberg [73] also agreed that peer ethical behavior is one of the crucial determinants of other employees' ethical behavior, which also agreed by Keith et al. [8]. In fact, peer influence has a positive impact on one's intention to behave unethically [81]. Therefore, this review proposed that:

Proposition 1b Ethical behavior of peers will have a positive effect on ethical behavior of employees.

F. Personal Influence on Ethical Behavior

Findings on the effects of personal variables on ethical behavior have been mixed particularly the influence of locus of control. According to Jones and Kavanagh [13], locus of control is one of the personal antecedents of ethical behavior that has received the most empirical support especially in the ethical decision-making literature. The following discussion would relate to the influence of one's locus of control on ethical behavior.

G. Locus of Control

Some people believe that whatever happens in their life are the consequences of their own actions, which is called locus of control [36]. It ranges from internal to external locus of control. Pierce and Gardner [36] further explained that if an individual believes that his or her future is a direct result of his or her own internal efforts like skills and abilities, it is considered as internal locus of control. Meanwhile, the external locus of control takes place when the individual believed oppositely. He or she believes that other factors like luck, other people, or the organization are the primary determinants of his or her destiny [36], which is beyond his or her control [82].

It has been discovered by past researchers [52, 70] that locus of control is significantly related to ethical behavior. The study by Zahra [70] revealed that managers with external locus of control are more likely to perceive organizational politics as ethical. Moreover, Jones and Kavanagh [13] revealed that individuals who perceive outcomes to be from external forces more likely to behave unethically than those with an internal locus of control. Individuals with external locus of control tended to regard unethical behaviors as more acceptable than individuals with internal locus of control [83]. Additionally, comparing with external locus of control, people with internal locus of control convey more crucial ethical judgments of an unethical behavior [84]. Therefore, it is proposed that:

Proposition 2a Internal locus of control will have a positive effect on ethical behavior of employees.

Proposition 2b External locus of control will have a negative effect on ethical behavior of employees.

33.5   Conceptual Model

This paper proposed a conceptual model, which tries to link two organizationally related variables (superior influence and peer influence) and one personally related variable (locus of control) with ethical behavior (refer to Fig. 33.1). This model is proposed based on preceding discussion. Figure 33.1 depicts the proposed link between the three variables. Ethical behavior is projected to be explained by both superior influence and peer influence as the organizationally related variables and also one personally related variable named locus of control. It is reasonable to deduce that the behavior of superior as well as peer will inspire the ethical behavior of employees. Apart from that, it is also assumed that employees with internal locus of control will have a positive effect on their ethical behavior in the organization.
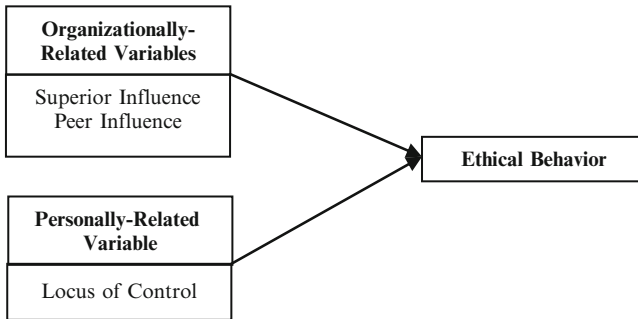
Fig. 33.1 Proposed conceptual framework

33.6   Proposed Methodology

In testing the linking between both organizationally related variables and personally related variable with ethical behavior, this paper suggests a data collection using survey method. Questionnaires will be developed in which measurement of each variable will be adopted from previous studies. Public employees are the most appropriate since there remains a scarcity of study on ethical behavior among public sector employees.

33.7   Expected Outcome and Conclusion

The issue of unethical conduct has become so critical to many organizations. The costs of unethical behavior for the organization and its stakeholders are potentially catastrophic. Given the negative impact of unethical behavior on organizations and society as a whole, examining what makes individuals behave ethically is warranted. Ethics play the role of encouraging integrity and promote standards of ethical behavior among employees. In fact, there are various predictors of ethical behavior, which can be classified into organizationally related factors and personally related factors. Based on a review of the relevant literatures, a model that links the relationship between organizationally related factors (superior influence and peer influence) and personally related element (locus of control) and ethical behavior has been proposed. It is hoped that this review is beneficial in improving our knowledge and understanding towards the determinants of ethical behavior. Given the wide media coverage on unethical practices among public servants in Malaysia, this paper would be able to create an impetus for studying ethical behavior among employees within the public sector. Furthermore, the outcome of this study is expected to give a clear picture on the linkage between both organizationally related variables (superior influence and peer influence) and personally related

variable (locus of control) with ethical behavior, which could bridge the past inconclusive findings on this study.

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Chapter 34
Measuring Walkability Attributes of Pedestrian Rail Commuter: A Pilot Study

H. Mokhlas, N.A. Hamid, M. Mustafa, and R. Sham

Abstract Almost every first mile journey starts with walking, and the last mile journey ends by the same form of transport. Various factors have been identified as having influence on the willingness of pedestrian rail commuters to walk from home to the nearby rail transit station. This pilot study was carried out in three rail commuter stations within the selected Transit Planning Zone of the Kuala Lumpur Conurbation. The main purpose of the study is to evaluate the pedestrian commuters' perception of their environmental factors to and from the rail transit stations. The proposed framework was evaluated by using a structured questionnaire and survey done on 50 respondents. The findings indicate that physical environment, weather, safety, and rail level of service have positive correlation with walkability. The findings may enhance the actual survey to be carried out, while the final results may provide further insights into walkability and then on increasing the rail patronage.

Keywords Pedestrian rail commuter • Transit Planning Zone • Physical environment • Safety • Weather • Rail level of service

34.1 Introduction

As the main capital city, Kuala Lumpur is the primary economic activities in Malaysia. The area covers approximately 504,000 ha of the Kuala Lumpur Conurbation (KLC). It is currently experiencing rapid urbanization where it is expected to accommodate ten million people by 2020 [1]. With the present modal share of only

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17 % for public transport and 83 % private [2], the city is currently affected by severe traffic congestion especially during morning and afternoon peak hours. Majority of the suburban commuters drive to work to the city center.

Due to the bad traffic condition in the city center, it has led to other transportation problems such as increase in the vehicle mile traveled (VMT), increase in traveling stress among commuters, and degradation in the environment. In order to mitigate the current phenomenon in the city center, Kuala Lumpur City Hall has come up with the Draft KL City Plan 2020 that has introduced the Transit Planning Zone (TPZ) which reflects the features of transit-oriented development (TOD) [1]. TPZ is an area within 400 m radius of a transit station that encompasses rail and bus rapid transit stations. The TPZ must be dense with mix land use and provided with a good pedestrian environment to encourage people within the area to utilize the public transportation [2].

To combat the serious urban traffic problems, the government, through its agency Land Public Transport Commission, has prepared the Greater Kuala Lumpur/Klang Valley (GKL/KV) Master Plan 2011. The plan is an initiative to improve the quality of public transport system including increasing its accessibility and connectivity [2].

34.2 Problem Statement

To date, the present suburban rail service commuter in KLC appears to suffer from underutilization. According to the GKL/KV reports (2011), it has been identified that the main problem in using the public transport in the TPZ residential area is very poor accessibility [2]. This evidence is supported in the Kuala Lumpur Structure Plan 2020 which indicates that there are major deficiencies in terms of the pedestrian linkages and there is generally a lack of pedestrian amenities provided in the city center. In many places within the city center, the pedestrian linkage between the major roads and the rail infrastructure is disconnected even though it is physically close but virtually inaccessible [3]. Study undertaken has validated that transport facilities in Malaysia are still very poor due to improper planning and design and that less consideration is given to pedestrian and nonmotorized transportation [4].

In line with the government mission to increase the public transport modal share to 50 % by 2020, the study looks at the aspect of accessibility of people who live within 400 m from the rail commuter transit station in KLC. This study focuses on easy access and good connectivity to railway stations. It is regarded crucial as it is incorporated in the overall satisfaction of the rail journey [5].

Findings from a study in evaluating park and ride system in KLC have demonstrated that 83 % of the commuter rail users walk to the rail station. There is still however limited understanding with regard to measuring the rail pedestrian commuters' behavior and the quality of station access via walking [6]. It is noted that various attributes that consist of physical environment of the walking infrastructure,

weather condition, and safety play important roles in rail pedestrian commuters' travel decision. This paper accordingly presents the following problem statement: To what extent is the relationship of the physical environment, weather condition, safety, and rail commuter level of service with the walkability of the pedestrian commuter rail to and from the transit stations?

It is hoped that with such findings, the initial results, using the instrument that has been developed, can further enhance the final main survey then on. These final findings can assist future transport engineers and planners in understanding ways to influence people to access rail transit station and then to improve public transport ridership and its modal share.

34.3 Research Objectives

This study is one part of a much larger study that analyzes on the walkability attributes of pedestrians that use the commuter rail services. For this paper, the objectives are:

Objective 1: To provide an overview of the factors that affect the walkability of the commuter rail pedestrians to and from home and the rail stations within the Transit Planning Zone

Objective 2: To measure the extent of reliability of the instrument to be used for the final study

Objective 3: To evaluate the extent of influence of physical environment, weather, safety, and rail level of service on walkability of the commuter rail pedestrians

34.4 Literature Review

A. Walkability

Victoria Transport Planning Institute describes walkability as reflecting the overall walking conditions in an area. It takes into account the quality of pedestrian facilities, roadway conditions, land use patterns, community support, security, and comfort for walking [7]. Walkability also refers to the quality of walking conditions, including factors such as the existence of walking facilities and the degree of the walking safety, comfort, and convenience [8].

Walkability can be categorized into high walkability, medium walkability, or low walkability of the neighborhood or on the street. This can be done objectively and subjectively. Objective measure uses geographic information system (GIS) as the tool to measure walkability. GIS is a computer-based tool that captures, stores, manipulates, analyzes, models, retrieves, and does graphical presentation of spatially referenced information [9]. Subjective measure on the other hand uses survey

to find the perception and preference of the rail commuters' walk from home to the transit station.

B. Factors AffectingWalkability

Various factors might affect walkability, namely, physical and nonphysical environment, attitudes, and perception toward walking, health, and reward gains from the physical activity. A study in Australia has developed a framework for assessing the environmental determinants of walking and cycling and for those who intend to conduct a study on walkability. It was suggested that there are two factors that might influence walkability in the neighborhood, namely, physical environment and individual. Physical environment consists of functional, aesthetic, and destination. Individual factors include motivation, interest, social and family support, and health status [10].

Land use also has been identified to be associated with walkability. Two fundamental aspects under land use that influence the choice to use motorized or nonmotorized transport are proximity distance and connectivity (directness of travel) [11]. Proximity distance refers to density and mix land use pattern. Environmental factors that gauge walking for transport including the presence of diversity of destination, residential density, walking infrastructure, aesthetics, traffic safety, and crime were positively related [12].

Weather has been indicated to give influence on the physical activity although the effect is not straightforward [13]. The same study noted that there is still limited study on the effect of weather on physical activity due to differences in geographical climate. Thus, it is important to encompass this factor in physical activity-related research.

There are many evidences that demonstrate safety as the most significant factor in influencing pedestrians' commuter travel decision. A study in Kuala Lumpur City Center commercial area found that safety is the most important factor compared to aesthetic and amenities for adult pedestrians [14]. Safety has also been identified as one of the significant elements that must be present to encourage people to walk from home to the rail transit station. Safety refers to the condition when one feels safe from the threat of crime [15]. In turn, fear might prevent people from walking within their neighborhood, and it may come from different types of perceived risks, namely, human and nonhuman [16].

Demand for public transport is very much influenced by fares, quality of service, income, and car ownership [17]. A published finding from a study revealed that 76.5 % of the total respondents that traveled by car (longer distance) or bike (short distance) are willing to change to public transport after the implementation of certain measures [18]. A study in England described that the significant factor that might influence car drivers to ride public transport to work is quality and efficiency of the service. Improvements in the aspects of frequency, reliability, better connection, and convenient drop off point might interest private car users to

Fig. 34.1 Research framework
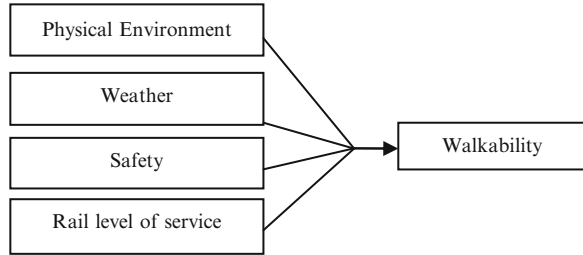
switch to public transport [17]. The most important reason why private vehicles still outnumbered the public transport users on the road is because driving your own car is too convenient as compared to commuting by public transport [18]. But similar study also reported that one would give up their car if improvement is made to tackle the issues of frequency, reliability, and cost of public transport. Future research suggests that the ease and frequency of availability of transit service is important in walkability study as it is a critical aspect in the travel choice decision [19].

Based on the literature review, this study has established a framework to show the relationship between walkability and its environmental attributes (Fig. 34.1).

34.5 Methodology

A. Research Design

The study is engaged in examining the correlational relationship between the environmental attributes, namely, physical environment, weather, safety, and rail level of service, to the nearest transit station from their home and walkability. This is a cross-sectional study where the data is gathered only once and the unit of analysis is the individual (rail commuter pedestrian). The pilot study has been carried out with the objectives of developing and testing the adequacy of the questionnaire in terms of the wording and meaning of the questions used. The pilot study will also ensure that the scaling used in the instrument is appropriate and correct [20].

B. Sampling Design

As the study is interested in investigating the travel behavior of the first mile mode of transport, the population of the respondents is made up of those commuters who walk from their home to the nearest rail commuter transit stations and those transit stations that are located within the TPZ of the KLC. Due to lack of population

listing and sampling framework, the study adopts a nonprobability sampling technique where purposive sampling is applied in selecting the respondents. A pilot study of 50 respondents has been carried out in July 2013 to test the significant effect between the environmental attributes and walkability. With reference to the pilot study sample size, based on Roscoe (1975) as cited in [20]), a total of 35 are considered reasonably sufficient to test the rigorousness and the adequacy of the research instrument later on.

C. Data Collection Method

The evaluation of the rail pedestrian commuters' perception was conducted by using a 33-item structured questionnaire. The respondents were approached along the pedestrian walkway located between their residing apartments/houses and the rail stations. Based on the locations of the stations, i.e., within 400 m of the rail stations and within the TPZ, the stations selected were Sri Petaling, Batu Kentonmen, and Pantai Dalam. Each respondent took an approximate average of 10 min per questionnaire to complete the survey, and they answered while waiting for the train to arrive. Prior to that and for confirmation purposes, the respondents were asked about their mode of transport from home to the station, and only those who walk would be selected as the respondent.

D. Instrument: Questionnaire

The questionnaire consists of four different sections. Section A focuses on the demographic factors. Section B elaborates on the factors affecting the walkability, while Section C focuses on measuring the walkability. The items evaluate the walkability parameters including distance, street infrastructure, street connectivity, weather condition, station amenities, safety from accidents while walking along the walkway, and safety from crimes at the station. All the items in the questionnaire were assessed based on a 5-point Likert scale with 5 being strongly agree to 1 being strongly disagree. The respondents have to rate their perception based on the travel experience of walking along the walkway from home to the rail commuter transit station. At the end of the questionnaire section, the respondents were encouraged to give their opinions and suggestions toward improving the walkways. Through the related expert input and theoretical justifications, the content and construct validity of the instrument have been established.

34.6 Analysis

The descriptive and the inferential analysis of the data was carried out using the SPSS Version 21. Apart from that, the software was also used to identify the reliability of the instrument and the correlation coefficient of the relationship between the walkability and its environmental attributes.

A. Respondents' Profile

Data on the respondents' profile on the gender, age, purpose of travel, and frequency of walking gathered during the pilot survey are presented in Table 34.1 below.

Most of the rail pedestrian commuters who walked from home to the transit station were female which made up 70.0 % of the total respondents. Majority were in the age group of between 21 and 30 years old (70.0 %) with the income level of within RM1001–RM2000 (34.0 %). A total of 60.0 % of the respondents are regular users whereby they use the commuter train more than three times per week. Due to the large number of the pedestrian rail commuters being younger adults, accordingly then, it is noted that 92.0 % of them are healthy and are physically fit to walk from home to the station.

It can be concluded also that the reason why the majority of the commuters walk from home to the office or college was due to them not owning any form of private vehicle (66.0 %). From the study, it is found that for the last mile form of transport, 54.0 % of the respondents walk to the office or college, 22.0 % ride a bus to their destination, and the balance carpool with their colleges. Thus, the findings support the previous literature which states that proximity of destination (office or college) might encourage more people to use rail transport.

B. Reliability Test

Toward analyzing the items used in the questionnaire, a reliability test was carried out. Studying the properties of measurement scales and the items that compose the scales is an important step in analyzing data. Accordingly, the SPSS software was run in order to ensure the reliability of the related variables. The most commonly used reliability test is Cronbach's alpha index. This is due to its interpretation as a correlation coefficient, and it ranges from 0 to 1. Accordingly, the Cronbach's alpha index was used in determining whether the questionnaire is reliable and the data can be used for further analysis [22]. The acceptance level of Cronbach's alpha index should exceed 0.7 [22]. Table 34.2 below shows the result of the reliability statistics. The reliability test coefficient for the dependent variable (walkability)

Table 34.1 Demographic profile

	Frequency	Percentage (%)
Gender		
Male	15	30.0
Female	35	70.0
Age group		
<20 years old	10	20.0
21–30 years old	35	70.0
31–40 years old	1	2.0
41–50 years old	2	4.0
51–60 years old	2	4.0
Above 60 years old	0	0.0
Purpose of travel		
Education	12	24.0
Work (private sector)	28	56.0
Work (government sector)	5	10.0
Self-employed	5	10.0
Income		
<RM1000	7	14.0
RM1001–RM2000	17	34.0
RM2001–RM3000	10	20.0
RM3001–RM4000	5	10.0
RM4001–RM5000	3	6.0
>RM5000	0	0.0
Not applicable (student)	8	16.0
Frequency of walking from home to transit station in a week		
Once a week	1	2.0
Once every 2 weeks	7	14.0
2–3 times a week	30	60.0
More than 3 times a week	4	8.0
Very rare	8	16.0
Do you have any medical limitations that prevent you from walking?		
No	46	92.0
Yes	4	8.0
Do you have a private vehicle available for you to make this trip?		
No	33	66.0
Yes	17	34.0

is 0.845, while those for the independent variables are to be 0.847 for physical environment, 0.655 for weather, 0.675 for safety, and 0.788 for level of service. Except for safety that indicates reasonably acceptable level of consistency in the items used for the variable safety, there exists high consistency for the variables physical environment, weather, and rail level of service. The dependent variable walkability also indicates high consistency for the items.

Table 34.2 Cronbach's alpha for the variables

Variable	Cronbach's alpha coefficient	No. of items
Physical environment	0.847	16
Weather	0.655	3
Safety	0.675	5
Level of service	0.788	9
Walkability	0.845	17

In general, reliability coefficient which falls more than 0.80 is considered good [20].

C. Inferential Analysis

The paper presents the analysis derived from correlation between the independent variables and the dependent variable of the study. However, the generalization of findings cannot be done due to the small number of samples ($N = 50$).

1. Test of Normality

Test of normality is essential in a research as it shows the distribution of scores on the independent variables. The bell-shaped or symmetrical curve is preferable as it indicates the percentage of scores likely to fall within each standard deviation from the mean. There are many ways to test normality of data, and for the purpose of this study, normality tests, namely, histogram, box plot, and Q-Q plot, have been carried out.
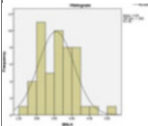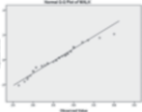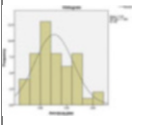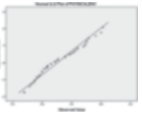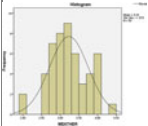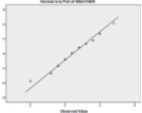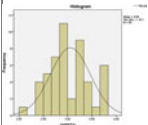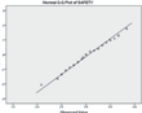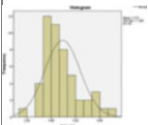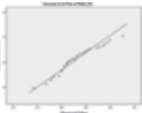
Based on the three tests, the results show that the dependent variable and independent variable scores are all normally distributed. The table below shows the distribution of the scores for all variables (Table 34.3).

2. Pearson Correlation

Pearson correlation is used to examine the association between the variables. If the value of correlation coefficient ranges from 0.10 to 0.29, it is considered weak. Meanwhile, the values that range from 0.30 to 0.49 are considered medium, while those from 0.50 to 1.0 are considered strong [25]. The measure of strength between the variables should fall within the range of +1 to −1. The value of 1.0 shows perfect positive correlation; 0 indicates no correlation between the dependent and independent variable, whereas −1 demonstrates perfect negative relationship.

Multicollinearity occurs when two or more variables in the model are correlated and provide redundant information. It is often confusing and leads to misleading

Table 34.3 Normality check for the variables

	Histogram	Box plot	Q-Q plot
Walkability			
Physical environment			
Weather			
Safety			
Rail level of service			

results. The use of correlation matrix is convenient since it is able to detect multicollinearity. To evaluate the direction of the relationship between the variables, correlation analysis has been carried out between the environmental attributes and walkability. Preliminary analyses were performed to ensure no violation of the assumption of normality, linearity, and homoscedasticity.

In this study, the correlation matrix shows that no variable exceeds the cutoff point of 0.9; hence, the problem of multicollinearity does not exist (as shown in Table 34.4). There is a medium positive association between the dependent variable

Table 34.4 Pearson product-moment correlation between environmental attributes and walkability

Variable	Total walkability		
	Pearson correlation (r)	SIG. (p)	N
1. Physical environment	0.253	0.038	50
2. Weather	0.064	0.328	50
3. Safety	0.025	0.432	50
4. Rail LOS	0.404	0.002	50

Correlation is significant at the 0.5 level (two tailed)

and physical environment (0.253). There exists a strong positive association between walkability and rail level of service with a value of 0.404. However, the association between weather and safety and walkability is very weak since the values are 0.064 and 0.025, respectively. At a p-value of 0.5, all the variables show significance to the dependent variable.

34.7   Discussion and Conclusion

This pilot study primarily aims to assess the adequacy, appropriateness, acceptability, and workability of the methods planned for the actual survey. It relates to the instrumentation, sampling, recruitment, and analytic methods or procedures. As in other pilot studies, this study also presents a challenge when the data are generated from a small sample size and a pilot study of such small sample size lacks statistical power to make generalizations to the larger population of interest [24]. Hence, the findings from this study need to be interpreted with caution.

Based on the findings, this study demonstrates relatively similar findings in the previous research where physical environment has significant influence on walkability [10–12]. Elements that are made up of the condition of sidewalk, aesthetic, distance from home to the rail transit station, and cleanliness give effect toward the walkability of the public transport users. Preliminary analyses were performed to ensure no violation of the assumption of normality, linearity, and homoscedasticity.

Weather has been indicated to give influence on the physical activity although the effect is not straightforward [13]. In contrast, findings from this study show lesser correlation to walkability of the rail pedestrian commuters. It is stated that people that live in a region that has temperate climates are more motivated to walk compared to residents who live in a more frigid climate region [15]. In this study, safety has also indicated contradictory result with the past literature where safety has a strong influence and significant effect to walkability [10, 14, 15]. Previous studies have shown that safety was among the essential factors that increase walkability. Apart from the issue of the small sample size, the differences in the

results may perhaps be also due to the fact that walking by rail pedestrian commuters was done during daytime.

Walkability attributes are seen as an important scope toward further understanding the pedestrian rail commuters' characteristics. This paper attempts to propose the framework toward evaluating the rail pedestrian commuters on the environmental attributes to the walkability to the transit station. As the objectives of this paper are to evaluate the significant effect between environmental factors and walkability, the findings reveal that there is high association between the rail level of service with the walkability. Physical environment shows moderate correlation to walkability. Weather and safety however indicate relatively very weak association with walkability.

Toward analyzing the rigorousness of the instrument used in this study, the result from this pilot study shows that there exists relatively strong internal consistency in the items used in the questionnaire, with three of the five variables showing relatively good coefficient value of above 0.7. The main technical improvement toward realizing a better output would be in terms of increasing the sample size, as stated by Fain [24]. With these findings, it is hoped that with the improvements made particularly to the robustness of the instrument, the findings from the main research that follows this pilot study, with a much bigger sample size, will provide better and more convincing results that can be used to provide some strong recommendations toward encouraging walkability and then on improving the use of the public transport.

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Chapter 35
Experiential Marketing Influence on Customer Lifetime Value of the Hotel Industry

Bahareh Sadat Hosseini and Rosmimah Mohd Roslin

Abstract The hospitality sector is a major contributor to the development of the tourism industry, and the hotel industry is one of the most extensive contributors to the hospitality sector. Today, there is a high level of competition in the hotel industry as service providers offer more and better services at various costs. The hotels are competing to offer somewhat similar services to satisfy their customers better than their rivals (Choi TY , Chu R, Int J Hosp Manag 20:277–297, 2001). It is because of this aggressive competition that they strived to excel, and for this to be realised effectively, the need to sustain customers become critical. The concept of customer lifetime value (CLV) (Bohari AM et al, Int J Bus Manag 6:161, 2011) has been introduced to emphasise the importance of sustaining customers. CLV has become a priority for many marketers competing in this hypercompetitive environment of business (Hosseini M, Albadvi A, Int J Electron Commer Stud 1:15–24, 2009).

In the hospitality industry, hotels observe CLV as a way to balance the challenge of managing incremental revenue in the short term with more long-term and strategic value generation initiatives (McGuire k, Customer lifetime value – the "Holy Grail" for hotels, 2012). In line with the creation of CLV in the hotel industry, there is a need to determine how to attract them continuously. This is where the idea of experiential marketing (EM) comes in which needs to be investigated from the tourists' perspectives. The question of whether EM stimulates hotels' occupancy rates and the linkage of EM with CLV as a strategic move by the hotels is the direction that this study is proposing. This is a conceptual paper that looks at the relevant literature leading to the linkage between EM and CLV.

Keywords Experiential marketing • Customer lifetime value • Loyalty • Word of mouth • Revisit intention

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35.1 Introduction

Tourism industry is an important economic contributor to many countries in the world, and its growth is of critical importance to economic development. The World Tourism Organisation (WTO) defines tourists as those who are travelling to and remain in places outside their usual surroundings for not more than one sequential year for rest, business and other purposes. In line with the tourism, industry development is the growth of the hospitality services and, in particular, the growth of hotels. Hotels are often considered as the core essentials of the tourism industry, and often their concentration lies with the business operations of generating revenue, profitability and stocks. When tourists stay in a hotel, they have different demands and they may achieve positive or negative experiences depending on what they go through [5]. Tourism attractions are linked to experiences, amusement, recreational and the enjoyment of services [6].

Notably, research in the hotel industry relates to a topic of customer lifetime value, which translates into the consideration of whether or not customers are satisfied, and this will lead to some trust towards the service provider. In support of this, customers will return to the hotel or relay positive word-of-mouth communication to other tourists, and such linkage is vital to the hospitality business and its success [7].

35.2 Experiential Marketing (EM)

The linkage between customer lifetime value (CLV) and experiential marketing is proposed in the context of the hotel industry as visitors staying in hotels are likely to experience directly various forms of services from the hotels. Experiential marketing is a strong operative which is based on customers' standpoint about experience and customer's senses, feelings, thinking, action and connection of these five aspects [8].

Expansion of experiential marketing to create competitive advantage is the new challenge for marketing scholars [9]. The notion of purchase, process of the purchase, thoughts of purchase and driving force of the purchase is coming from the customer's experience [10]. Experiential marketing is a current notion to find out the intricate requirements and desires of customers [9]. In the hotel perspective, the richness of experiences arising from experiential marketing is often memorable and unrivalled during the period of stay, and customers may want to repeat them. As such, the final goal of experiential marketing as a strategy to the hoteliers is customising goods and services to create unique value and memorable events for the customers [11, 12].

In essence, experience is the main component of experiential marketing, and if a service provider can creatively developed memorable experiences for customers, the likelihood of retaining these customers will be high [13]. Customer experience

is an internal and intellectual response which customers obtain in any direct or indirect contact with a company. Direct contact usually relates to purchase and use, while indirect contact mostly occurs in unsought collision with the company's products, services or brands, and these may lead to word-of-mouth recommendations, news reports and reviews [14].

Hence, there is a need for market researchers to measure customer experiences before and after such experiences in order to understand the effectiveness of the strategic implications of marketing programmes [15]. Tourist experiences cannot be bought. They can only take shape in the mind of the tourists. The tourism experience is unique, emotionally charged and of high personal value [16]. The quality of tangible and intangible service and product in the hospitality industry drives the quality of tourists' experiences which affect their satisfaction and therefore influence their willingness to pay more [17]. Strategic experiential modules (SEMs) have been identified by Schmitt [8] which the marketers can shape and employ to manage experiential marketing strategies. These consist of the elements of senses, feelings, thinking, acting and relating.

A. Sense Experience

Sense experience relates to the senses with the objective of creating sensory experiences, through sight, sound, touch, taste and smell [9]. It has an important role for creating efficiency in service industries like hotels as each sense has different effects on customers [18]. Past studies that investigated how these senses affect customer behaviours in the service industry found the following:

Visual dimensions: The most usual usage in service industries like hotels and restaurants is colour because it has a profound effect on moods and emotions of customers. There are some dyes which affect more on the emotions such as pink as a romantic colour, green which exemplifies nature, yellow to gain attention, purple for feeling of luxury and red for provocative appeal [19].

Aural dimensions (sound): Sound is one notion of physical environment that is used extensively in service industries such as hotels and restaurants. Music is a considerable factor for everyday living and may affect customers' expectation [20]. As Bruner [21] mentioned, music is a significant base which can induce a customer's demeanour and mood. Hul et al. [22] demonstrated that music has a positive advantage on customer behaviour in a service surrounding. As such, hotels should develop suitable atmosphere through aural influence by playing music that offers relaxation or music that is in line with age segmentation of the visitors to the hotels [20].

Touch dimensions: It is a perceptible sense where customers can have physical contact with and can feel elements of sharpness, hardness and roundness. It is important for consuming services such as in hotels where comfortable sofas in

the hotel lobbies and cosy beds for rooms enhanced customers' feelings of relaxation [23].

Taste dimensions: It is the sense which customers can feel in the mouth through the elements of salinity, sweetness, bitterness and sourness. In the hotels' restaurant, the taste perception is specifically important including the name of the food, the tastes and their scents and also the sound and interior design of the place. For this reason the sense of taste relates to a more holistic implications and not just in terms of food which customers put into their mouths [23].

Olfactory dimensions (scent): It is the sense which has an effect on the customers' brain and mind without any prior consideration [24]. Guéguen and Petr [25] asserted that lavender essential oils and lemon essential oils have psychological effect as lavender creates calmness and lemon is enlivening and energising when applied in service settings in hotels and restaurants.

B. Feel Experience

Feel experience relates to internal feelings and emotions of customers from moderately positive mood to potent emotion of pleasure and vanity. It relates to the stimulus which can affect customers' emotions and therefore influence their relating actions [9]. Hotel patrons exert their direct experiences, and they express their feelings about the services [26]. When the hotel's environment is attractive, the customers are likely to have positive emotions and the feeling of enjoyment [27].

C. Think Experience

Think experience relates to senses with the purpose of problem solving that occupies customers' creative thinking through elements of surprise, agitation and stimulation. This experience assists customers in creative thinking and re-evaluates the company's standing and service offerings [9, 26]. The decoration and physical environment of hotels are likely to inspire customers and arouse their curiosity and discovery senses [27].

D. Act Experience

Act experience empowers physical experiences by enriching customers' lives and offering them alternative lifestyles and interaction possibilities. Customers are exposed to alternative lifestyles by emulating their role models such as movie stars [9]. The hotels provide activities that are inspirational and are linked to their role models and can influence the customers to act accordingly [27].

E. Relate Experience

Relate experience includes sense, feel, think and act experiences. It extends further individual's sensation, feelings, recognition and action. The requisition of this experience is for self-improvement [9]. In hotels, the physical environment and exhilarating views are likely to attract customers for picture taking as memento and memorable keepsakes [27].

Thus, experiential marketing is postulated to have a possible impact on customers' actions which may affect the marketers' performance. Successful implementation of experiential marketing may lead to the attainment of loyal customers and therefore create customer lifetime value (CLV) for the marketers.

35.3   Customer Lifetime Value (CLV)

Customer lifetime value or CLV is depicted as an enterprise's net profit value from an average customer over a specified period of time, and it is measured by customers' shares of purchases and relationship continuity [28]. It has been asserted [29] that CLV can be estimated in two important phases:

1. Core relationship, which consists of two dimensions:

   Usage factor: It is the period and consistency of the relationship between the company and the customers. This is the period of contact or usage of quantity by the customers.
   Fan identification: This demonstrates the personal sensation and commitment of customers to the marketer, and it can be expressed as loyalty.

2. Extension relationship, which consists of two elements:

   Product merchandising: The merchandise offered by the marketers can have the capability of attracting customers. For CLV computation, this will be based on sales that are linked to purchase intention.
   Word of mouth: This relates to existing and potential customers' recommendations based on the fulfilment of satisfaction derived from the company's products and services.

Therefore, the measurement of CLV will be based on these elements (loyalty, word of mouth and purchase intention) which are extracted from previous studies of McDonald [29] and Kim and Cha [28]. Service sectors such as hotels have given more attention to CLV because losing a customer connotes much more than a single sale; it relates to losing a stream of cash flows from repeat purchases and revisits [30].

A. *Loyalty*

A key factor in CLV is the notion of loyalty. There are many definitions of customer loyalty that have been presented in previous studies. A great amount of researches concentrate on expression of customer loyalty in the marketing area, customers' amusement and their relating behaviours [31–34].

Loyal customers are the strength of many companies as there will be a tendency of repurchasing the same brand, products, services and repeat business for the company which expresses loyalty [35]. Customer loyalty is the feeling of interest towards the company's people, products or services' efficacy, and these impressions reveal different implications of customer behaviour [36].

Foss and Stone [37] explained that customer loyalty experts would approve that mind mood, trendset and faith are the best definitions for loyalty, and loyalty describes customers' thinking and doing. Dick and Basu [38] identified the customer loyalty model where there are two dimensions of loyalty:

- Comparative propensity
- Protection behaviour

Parasuraman et al. [39] argued that generation of profits of the service provider is obtained by increasing customer retention against the low rate of customer defection. They identified eligible behavioural intentions as being attached to the capability of service providers. The service providers can achieve customer loyalty by addressing the needs of the customers precisely and to get the customers to introduce and recommend them to other customers. According to Gee et al. [40], customer loyalty has the following advantages for an organisation:

- The service cost of acquisition new customers is more than loyal customers.
- The higher costs of products set would be paid by loyal customers in a company.
- Word of mouth as a marketing agent would be acted by loyal customers.

Walsh et al. [41] insinuate that care of existing customers is better than gaining new customers. Broadly speaking, cost of serving loyal customers is five or six times less than the acquisition of new customers; therefore, companies strive for retention of customers [42, 43]. Ramanathan and Ramanathan [44] elucidated some factors, such as customer service, cleanliness, room quality, value, quality of food and family friendliness, as loyalty factors in the hotel service environment.

B. *Word-of-Mouth (WOM) Communication*

Another element of CLV is the propensity of word-of-mouth (WOM) communication. Word-of-mouth communication serves as a person-to-person channel to transmit information [45, 46]. Word-of-mouth communication does not belong to any of the traditional types of marketing communication employed by companies. Word

of mouth originates from loyal customers who are committed to a place or service [47]. Word of mouth exudes credibility and ordinary advertisement without cost when the enterprise attained satisfied customers [48, 49]. Word of mouth is the most powerful communication in the hotel industry, and it further acts as an alternative source of information to help others to make decisions. This form of communication is considered reliable and accurate as it has nothing to do with the traditional mode of marketing, and it most often comes from relatives or friends who have first-hand information [47].

Despite the fact that word-of-mouth communications and recommendations are mostly described in terms of positive information and experiences in practice, word of mouth in the educational field has been related to both positive and negative perceptions. Naturally, favourable word of mouth increases the chances of purchase for the decision-makers, whereas negative word of mouth creates a complaint atmosphere and hence has an opposite effect [50]. When the customer discovers exclusive, supportable and memorable experience via word of mouth, they would desire to repeat them [11, 12].

C. Revisit Intention

Customer's repeat purchase in the hotel industry is called revisit intention, and it is also linked to customers' satisfaction with preliminary purchase [51]. The willingness to revisit the same destination is called revisitation [52], and the qualification of destination affects on tourists' intention to introduce, recommend and come back again to the same location [53]. Intention of customers relates to their satisfaction. If they are satisfied, they will repurchase and revisit a destination; otherwise, they would not do that [54]. Ross [55] described it as experimental support that when the tourists have enjoyable and memorable experiences, they are more likely to plan and return in the future. Therefore, satisfaction has a critical role for the next visit.

Because of the highly positive correlation between guests' overall satisfaction levels and the probability of their return to the same hotel, long-term and bilateral advantageous relationships between customers and the hotel are becoming important [1].

35.4 Discussion

The accumulation of literature thus far has managed to conceptualise the possibility of relating EM and CLV in a setting where customers are more inclined to react to their experiences. Staying in hotels implies direct experiential values as hotel guests will be able to address elements of physical environment and service provision which will influence their satisfaction or dissatisfaction. Since experiential marketing requires the marketers to develop specific strategies that are capable of

enhancing customer attraction, it would be interesting to understand how this translates to the creation of CLV. One of the key factors in addressing CLV is loyalty, and this would be relevant when experiences that customers go through are translated into lifetime value for the marketers.

This paper demonstrates the relevancy of experiential marketing in the context of the service industry. When customer s' experiences in relation to the service offerings are positive, the likelihood of the marketers gaining the benefits from loyal customers is much more apparent. The proposed study therefore hopes to address the link between EM and CLV and therefore contributes not only to the body of knowledge relating to the theories of EM and CLV but also to the applied scenario where practitioners, specifically hotels operators, can benefit from the understanding of how customers or hotel patrons expressed their experiences during their hotel stay.

35.5   Conclusion

Although the literature has established the possibility of associating EM and CLV, there is still a need to understand how these constructs are operationalised within the research setting. More critical evaluation is perhaps needed to understand further the mechanics of CLV and how this can be translated into meaningful information to the academics and the practitioners. In addition, understanding of EM also has to be enhanced if further implications are required to address relevant issues of consumer behaviour. Indeed, the theory of experiential marketing [8, 56] has not been extended into the tourism sector or hotel industry, and this therefore validates the need to enhance existing literature by enhancing our understanding of this phenomenon further.

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Chapter 36
The Effects of Indirect Experience of Hotel Customers on Brand Association and Loyalty in Iran

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Abstract Hospitality industry is one of the most substantial factors for the tourism industry in Iran. However, this sector has been neglected for various political and social reasons, especially during the post-Islamic revolution of 1979. The main objective of this paper is to investigate customers' indirect experiences in the hospitality industry in Iran due to a significant advancement in the hotel establishments. Hotel guests, in turn, institute their brand knowledge partly through indirect experiences. A better understanding of how this experience contributes to brand image has important implications for brand managers. The data was obtained from 302 international and local customers in four- and five-star hotels in five major cities in Iran. The findings revealed that there are significant correlations among the factors. This paper contributed to the existing body of literature in the hospitality industry particularly in Iran's context. This study will significantly contribute to the Iranian tourism market in seeking improvement toward the effectiveness of hotel customers on brand association and loyalty in Iran. Hotels of five major cities of Iran. The results of the survey indicated that the most important is the lack of brand awareness for Iranian hotel brands.

Keywords Hotel customers • Brand association • Loyalty • Hospitality industry • Iran

36.1 Introduction

A. *Iran at a Glance*

Iran has been in Persian literature since the Sassanian era (224–651 BC) and became the official international title for the country in 1935. In Western countries, Iran had been traditionally known as Persia. Iran is located in southwest Asia in the Middle East region. Around 75 million people live in an area of 1,648,195 km^2 [1].

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Iran's economy is based on oil, gas, and petrochemical industry, agriculture, mining, and other industries. Iran is estimated to have around 9 % of the world's oil reserves [2]. The majority of the country's land surface is not arable, and only one-third is suited for agriculture. Cereal crops such as wheat, barley, and rice, fruits, sugar beet, tobacco, saffron, tea, and pistachio nuts are Iran's major agricultural products.

B. Islamic Republic of Iran and Tourism

In Iran, tourism development can be an important vehicle for economic, social, and peace development. Iran's potential in the tourism industry is nonnegotiable and obvious. The diversification of climate, nature sceneries, and historical attractions are just examples that make Iran incomparable to many other countries in the world, and tourism in Iran is characterized by huge opportunity in terms of natural and cultural assets.

Particularly, tourism and hotel industry growth can be one of the main sources of income to get rid of economic problems in many oil-rich countries which have an economy depending on oil and are not having other sources of income. As for Iran, after the oil and non-oil exports, tourism can be the next most important source of income and in the future even has to surpass those two resources. Definitely, Iran cannot depend on its oil resources forever because of the economic situation of Iran, and it seems that tourism and hotel business development in Iran is not a choice anymore, but it is a vital and urgent matter. Thus, tourism also will increase foreign exchange earnings of Iran, create employment, promote development in various parts of the country, increase income, strengthen linkages among many sectors of the national economy, and help to alleviate poverty [3].

Notably, the number of tourist arrivals has shown an increment from 2000 to 2012. However, due to some political issues in the country, the year of 2012 shows a slightly lower number of tourist arrivals (Table 36.1).

Table 36.1 Number of tourist arrivals in Iran (2000–2012)

Year	Number of international tourist arrivals	Year	Number of international tourist arrivals
2000	1,400,000	2007	2,150,000
2001	1,450,000	2008	2,000,000
2002	1,550,000	2009	2,250,000
2003	1,500,000	2010	3,100,000
2004	1,600,000	2011	3,250,000
2005	1,900,000	2012	3,130,000
2006	1,800,000		

Source: Mirzaei [4]

36.2 Review of Literature

Indirect Experience of Hotel Customers

In this study, advertising efforts and word of mouth are treated as the dominant sources for interpretations of customer indirect experiences, whereas service is considered to create direct experiences. This study sheds light by observing the relative importance of indirect experiences in developing brand equity at the customer level. In fact, a brand serves as an information "chunk" for customers. Brand messages and information originate in corporate actions and traditional marketing communications and are received by customers to establish their brand image. It is theorized that customers have two alternative ways of seeking information about the quality of goods. One is to search external sources (such as advertising efforts and word of mouth) that create indirect experiences for customers, and the other is to rely on their personal direct experiences (e.g., [5–8]).

A. Brand Association

In more recent study, Hankinson [9] grouped brand associations into four categories: functional associations, symbolic/emotional associations, experiential attributes, and brand attitudes. The first two represent the real and imagined features, respectively, that are nurtured by the brand's promoters, whereas the last two are created by customers who constantly require satisfaction and evaluate their experiences of a brand accordingly. Based on these efforts to simplify the understanding of brand associations, Yoo and his colleagues (e.g., [10, 11]) introduced general terms to measure brand associations and developed a reliable variable in its relationship with brand awareness. This variable has been supported by a number of assumed case studies (e.g., [10–13]).

Aaker [14] and Keller [15] both had a thorough discussion on brand associations. Aaker [14, p. 114] categorized 11 types of associations that can be generated from brand names or symbols. They are (1) product attributes, (2) intangibles, (3) customer benefits, (4) relative price, (5) use/applications, (6) user/customer, (7) celebrity/person, (8) lifestyle/personality, (9) product class, (10) competitors, and (11) country/geographic area. Aaker [14] posited that these associations create values to the brand by helping in processing and retrieving information, providing a basis for differentiation, offering a reason to buy, creating positive attitudes and feelings, and building the basis for extensions. Keller [15] stated that brand associations not only differ just on types but also vary according to their favorability, strength, and uniqueness. Favorability is the consumers' predispositions toward a brand. Strength refers to how strong a consumer feels that a particular association is linked to a brand. Uniqueness refers to the portion of brand associations shared by other competing brands or common to the category of the branded product or service. Keller provided an exhaustive study on the structure and characteristics

of brand association, but the discussion stayed on the conceptual level. Keller did not apply these discussions into empirical measurements.

B. Brand Loyalty

In this study, brand image, service performance or perceived quality, WOM, and advertising attitudes are posited to be key factors that have direct and/or indirect effects on brand loyalty. Clearly, market research conducted previously on brand equity resulted in various dimensions of brand equity linked to a brand. However, the common factor in all models is the use of one or more dimensions of the Aaker model (e.g., [10, 15–17]). Therefore, the consumer-based brand equity consists of four dimensions: brand awareness, brand associations, perceived quality, and brand loyalty. Although the perspectives differ, their common focus is on what makes a strong brand, i.e., the creation of loyal consumers. Among the concepts used to describe a strong brand, brand loyalty is perhaps the one that has received the most attention by academics and practitioners [2].

For that reason, there are various definitions and measures of brand loyalty; some focus on the attitudinal dimension, and others focus on the behavioral aspect of brand loyalty [18, 19]. In this study, brand loyalty "is a deeply held commitment to rebuy or reutilize a preferred brand consistently in the future, despite situational influences and marketing efforts having the potential to cause switching behavior" [19, p. 392]. Brand loyalty is posited to be in most models of brand equity; brand loyalty is posited to be either a component [14] or an outcome [20] of brand equity. Brand loyalty is a valuable asset for every brand. Research has indicated that the cost of recruiting new customers is very high due to advertising, personal selling, establishing new accounts, and customer training [21].

More importantly, profits generated by loyal customers increase significantly over time [22]. Accordingly, research on brand loyalty and its antecedents are still of interest to many researchers Gounaris and Stathakopoulos [23] and Tsao and Chen [24]. Brand awareness, perceived quality, distribution intensity, and advertising attitudes are posited to be key factors that have direct and/or indirect effects on brand loyalty.

Three hypotheses were examined in this current study:

H1: There is a positive and significant relationship between indirect experience and brand association.
H2: Brand associations have positive and significant effects on brand loyalty.
H3: Brand association mediates the relationship between indirect experience and brand loyalty.

36.3   Research Methodology

In this research, the data collection procedure and the demographic profile of the respondents are explained below. It is followed by the questionnaire used in this study. This study also covers the reliability of the instrument and method of statistical analysis.

A. Data Collection and Demographic Profile

This study surveyed both local and international tourists in four- and five-star hotels in five major cities in Iran. In tourist destination satisfaction studies, it is usually difficult to estimate the total number of tourists. Therefore, this study used the disproportionate sampling method to determine the minimum sample size since the number of local tourists outnumbered the international travelers. In total, there are 14 five-star hotels and 29 four-star hotels in the major cities of Iran such as Tehran, Mashhad, Esfahan, Tabriz, and Shiraz, which amount to 43 hotels. Several criteria were considered in selecting the hotels in these major cities of Iran. It is based on the actual experience of customers who stayed in the four- and five-star hotels. From the 430 questionnaires distributed to the tourists, 368 were returned which amounted to a response rate of 85.6 %. From the 368 questionnaires, only 302 were used for the analysis after the data was screened.

According to the demographic profile of the respondents, it was seen that the majority was male (65.9 %). Most of the respondents were aged between 31 and 40 years followed by 41–50 years (31.4 %). Respondents who were aged higher than 61 years constituted the least of the sample. Furthermore, moving to the educational background, the majority of the respondents hold a bachelor's degree (39.5 %), and it was seen that only 8 % had a PhD degree and the majority of them were married (61.7 %). Hence, a typical respondent would be a married man aged between 31 and 40 years holding a bachelor's degree (Table 36.2).

B. Questionnaire Adaptation and Variables

The questionnaire used in this study was adapted from several studies. The "indirect experience" items were adapted from [26], while "brand loyalty" and "brand association" were adapted from Aaker [14] and Keller [15]. The three variables use a 7-point Likert scale ranging from 1 (extremely disagree) to 7 (extremely agree).

Table 36.2 List of hotels in major cities of Iran

City	No. of five-star hotels	No. of four-star hotels	Total
Tehran	5	10	15
Mashhad	4	9	13
Esfahan	2	4	6
Tabriz	2	1	3
Shiraz	1	5	6
Total	14	29	43

Source: Sadat and Zainal [25]

Table 36.3 Internal consistencies of the three variables

Variables	Items	Cronbach's alpha values
Indirect experience	12	0.870
Brand association	8	0.915
Brand loyalty	10	0.927

C. Reliability

The internal consistency of the three variables was tested by the Cronbach's alpha values. It was observed that, for the three variables, the Cronbach's alpha values were above the threshold ($\alpha = 0.70$). From Table 36.3, it could be deduced that "indirect experience," "brand association," and "brand loyalty" are reliable.

36.4   D. Results

In this section, the mediation analysis was carried out in SPSS 19.0, and the results are presented in Table 36.4. The mediation analysis used the unstandardized regression coefficients rather than correlation coefficients to measure the effect of the independent variable (IV) on the dependent variable (DV). In Models 1, 3, and 4, the dependent variable was "brand loyalty," but Model 2 had "brand association" as the dependent variable. The mediator was "brand association."

The sign of the regression standardized coefficient (Beta) represents the positive or negative impact of the predictors on the dependent variables. The unstandardized coefficients and their standard errors are presented in Table 36.4. It can be seen from Models 1 and 3 that the regression coefficient for "brand loyalty" to "indirect experience" decreases from 0.527 to 0.235 when the mediating variable "brand association" was added. It was suggested that the mediator may be exerting a partial mediating effect. This mediation analysis used the unstandardized regression coefficients instead of the correlation coefficients to measure the effect of the IV on the DV. It was observed that "indirect experience" had a positive ($B = 0.527$) and statistically significant relationship (p-value $= 0.000 < 0.05$) on "brand loyalty"

Table 36.4 Hypotheses testing

Model	Predictors	Unstandardized coefficients		Standardized coefficients Beta	R^2	t	p-value	Hypothesis result
		Beta	Std. error					
1	Indirect experience	0.527	0.048	0.534	0.534	10.93	0.000	Accepted
2	Indirect experience	0.682	0.042	0.688	0.688	16.40	0.000	Accepted
3	Indirect experience	0.235	0.062	0.238	0.618	3.799	0.000	Accepted
	Brand association	0.428	0.062	0.430		6.873	0.000	
4	Brand association	0.591	0.046	0.594	0.594	12.78	0.000	Accepted

which confirmed the hypothesized relationship between those two variables. The R^2 coefficient was 0.534 indicating an adequate model fit. Moreover, it was deduced from the regression analysis that "brand association" had a positive ($B = 0.682$) and statistically significant relationship (p-value $= 0.000$) on "indirect experience," thereby accepting the hypothesis. It was observed that "brand association" was a significant (p-value $= 0.000$) mediator with a good fitting model ($R^2 = 0.618$). This confirmed the hypothesized relationship, and it was reported that partial mediation has occurred since the effect of the IV was mediated by the MV. In this study, all the postulated hypotheses were accepted.

E. Conclusions

Consequently, since Iran is relatively new to the tourism industry, it is necessary to measure the effectiveness of the hospitality industry and understand whether Iran is going to the right direction. To be successful, the product, price, promotion, and distribution systems have to be favorable and competitive with other producers. Since branding process is time consuming and requires technical knowledge, branding needs to have a dynamic economy and support by the government. In view of the fact that branding is a long process of growth and reaching maturity, hence Iranian investors are working hard to produce a standard product since branding plays an important part in customer satisfaction. Thus far, in the absence of comprehensive discussions on the customer-based experience and motivational factors that lead to brand loyalty, with the proposed points above, this paper is expected to shed some light to fill the gap and add to the volume of information in customer hotel experience and branding [3].

F. Recommendation

Research is needed to determine whether the hotel brand management strategies discussed have different effects on the development of brand equity. Different hotel segments may engender disparate results in this aspect [27]. The visiting times that hotel guests have engendered with a hotel brand should be further considered as a control variable in the exploratory research. With the help of observations across different hotel segments, this study sheds refulgent light on our understanding of how to build brand equity from a holistic perspective, thus paving the way for better strategic brand equity management, not only in the hotel industry but in the service industry at large.

In the space of exclusive markets of hotel brands, one of the advantages of contest is that the brand-centered customers remain faithful to a certain hotel. Of course, brand making along with severe advertising does not necessarily mean "to be accepted." A hotel can be famous and accepted if it becomes successful in a

competitive space. Some issues such as an increase in the world competitive standard, imitation skill of products and services, having well-informed customers, the effectiveness of costs related to media, and many other cases cause the hotels to pay attention to a branding subject for selling their products. Considering the importance of this issue, it seems necessary to investigate the parts of this subject that are the services and the image of the brand.

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Chapter 37
Information Technology and Competitive Advantages Among Small and Medium Enterprises in Malaysian Tourism Industry

Leviana Andrew and Ariff Md Ab Malik

Abstract This study seeks to clarify the relationship between IT and competitive advantages in the tourism industry in Sabah. Several theories such as the resource-based view, market-based view and Porter's model of competitiveness are discussed to further explain the association between these two variables. The element of strategic planning is added in the relationship as a moderator. This paper presents the theoretical framework for the IT utilization among small and medium enterprises (SMEs) in Malaysia by focusing on SMEs' tour and travel agents in Kota Kinabalu, Sabah.

Keywords Information technology • Resource-based view • Porter's model • Competitive advantages • Strategic planning • Small and medium enterprises • Tourism

37.1 Introduction

The information technology (IT) advancement has been proved to offer more advantages to tourism enterprises in providing flexible, specialized, accessible and interactive products to their customers [1]. Recently, researchers have focused on getting better insight into how IT contributes to competitive advantage of enterprises. For example, the *resource-based view* (RBV) focuses on strategic resources which are human, physical, information, knowledge and relational resources [2]. These enterprise resources must be valuable, rare, inimitable and non-replaceable in order to create competitive advantages [3]. Some of the studies found that IT supported strategies for competitive advantages [4–7]. Conversely, some researchers indicated IT utilization does not guarantee profitability and may even worsen the enterprise competitive position [8–10]. Thus, it reflects to the inability of the enterprise to provide its business long-term vision. Ashraf [11]

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suggested that when an enterprise wants to invest in IT, the implementation of strategic planning will amplify IT benefits. These conflicting findings suggest that there is a need to further investigate the relationship between these two variables.

37.2   Background of Study

A. Tourism in Malaysia

In 2012, the tourism industry was the second largest foreign exchange contributor after manufacturing goods and the seventh largest contributor to the Malaysian economy with gross national income (GNI) of RM60.6 billion [12]. In January 2013, Malaysian Government had launched "Visit Malaysia Year 2014" promotion with the aim to achieve 28.8 million in foreign tourist arrivals and RM76 billion in tourism receipts in the following year [13]. This promotion year can be seen as a preparation year with a massive campaigning and marketing of events and tourism products to public using various media technologies, specifically through the Internet, by the Ministry of Tourism and Culture Malaysia [14]. At the state level of Sabah, in 2008, its tourism sector was reported to be the third highest economic contributor to the state's gross domestic product (GDP) and had represented almost 53.3 % of total employment of service sectors of its population [15]. Eight out of ten of Sabah tourism workers were local [16]. Thus, it has helped mostly those who were from low-income groups to improve their living through tourism-related activities such as homestay, ecotourism and handicrafts.

B. Statement of the Problem

Werthner [17] reported that small and medium (SME) tourism enterprises in Sabah do not plan to streamline their businesses with IT implementation in enhancing their business competitiveness, for example, *computerized reservation system* (CRS) or *global distribution system* (GDS). When these local SMEs lack IT utilization, they lack competitiveness and will not be able to sustain in the industry. Consequently, it will also indirectly affect the local workers in that industry. Therefore, this study is attempted to examine the relationship between information technology and competitive advantages among SMEs particularly in Sabah tourism industry.

The findings will be used to raise awareness among SMEs tourism about IT benefits to their competitive advantages and to assist the Malaysia's tourism-related authorities in developing a blueprint for IT application among local tourism enterprise.

37.3   Literature Review

The literature review relates to: *resource-based view* (RBV), *market-based view* (MBV), Porter's competitive model, competitive advantages, IT infrastructure, IT capability agent, IT competencies and strategic planning.

A. *Market-Based View vs. Resource-Based View*

RBV founded by Barney [3] that viewed an enterprise as a bundle of resources capability. On the other hand, MBV regarded enterprise as a unit in a market and focuses on strategy-based competitive analysis and appropriate value [18–20]. Meanwhile RBV focuses on distinct resources and capability [21]. Although these two views inferred competitive advantages differently, both views have proposed that enterprises must find a way to distinguish themselves from their rivals [22].

B. *Competitive Advantages*

When the enterprises have some advantages over their rivals, they will become more competitive and able to sustain in the long run. Gupta [23] identified two major types of competitive advantages: (1) comparative advantage (cost advantage) and (2) differential advantage (differentiation). Meanwhile, the Porter's diamond model [24] classified five forces of competitiveness, such as: (1) rivalry of competitors, (2) threats of new entrants, (3) threats of substitutes, (4) bargaining power of customers and (5) bargaining power of suppliers. Porter and Millar [25] developed five basic competitive strategies, namely: (1) cost leadership, (2) differentiation, (3) innovation, (4) growth and (5) alliance strategies. These fundamental guides may allow the enterprises to develop their competitive strategies by distinguishing themselves from their competitors, aligning all activities with the strategic management and managing their resources better [26]. Five outcomes of the competitive advantages, such as:

- *Agility* [4, 27]. Baggio and Caporarello [28] defined agility as enterprise's preparedness to changes with its internal capability in flexible and timely manner. In SMEs, the application of email, Internet, telephone and facsimile was considered as the agility-enabled capability.
- *Customer service* [4, 6, 29]. It spoke of meeting and exceeding customer expectation and satisfaction [30]. The key to enhance customer service is treating customers as special individuals. E-commerce websites have profiling tools that allow customers to personalize their profiles and enterprise could

identify each customer's behaviours for developing suitable methods to approach them [7].

- *Low cost* [4, 6, 31]. Producing products and services at the *lowest cost* is considered to be one of the outcomes of competitive advantage. In this matter, various IT applications such as websites, word processing applications, *computer reservation system* (CRS) and *global distribution system* (GDS) are proven to reduce operating costs of enterprises [8, 32].
- *Differentiation* [4, 6]. IT tools can be used to develop differentiated features or to minimize the advantage gap by its competitors such as using social networks to better understand customer and develop intimate relationship with them [33].
- *Innovation* [4, 34, 35]. Chui and Fleming [36] highlighted that enterprises can use information systems to identify and create new products and services and to develop new niche markets and to radically change business processes via automation.

C. Information Technology

Buhalis [8] and Vidas-Bubanja [33] stated that IT has enhanced the business process by constantly through: (1) increment of computing speed, (2) decrement equipment size, (3) reduction hardware and software costs and (4) improve the reliability, compatibility and interconnectivity of numerous terminals and applications. There are three elements of IT that contribute to competitive advantage which are:

- *IT infrastructure* [27, 37, 38]. Gartner [38] explained that IT infrastructure is the system of hardware, software, facilities and service components that support the delivery of business systems and IT-enabled processes. Scholars in IS field have studied IT infrastructure flexibility as an independent variable [37, 39, 40] and as a moderator [41, 42].
- *IT capability agent* [6]. Mithas et al. [43] stressed that the end-user applications or business intelligence enables enterprises' capability to process information in delivering their products and services to the customers. This includes business application software, the Internet, groupware and even *customer relationship management* (CRM), *computerized reservation system* (CRS) and *global distribution system* (GDS).
- IT competencies [35]. These competencies refer to the required skills and abilities of individuals to work with the information system that reflect to the owners or managers' knowledge, experience and IT decision-making.

D. Strategic Planning

Drnevich and Croson [44] defined strategic planning as an organizational management activity that uses to set priorities and focus energy and resources. It also uses to strengthen the organization's operations in ensuring the employees, and other stakeholders are working towards common goals, establish agreement around intended outcomes and assess and adjust the enterprise's direction in response to a changing business environment. Subject to *resource-based view* (RBV) theory, this activity focuses on strengthening an enterprise's internal factors by coordinating all aspects either in management, technical or operation department.

E. IT and Strategic Planning

Beveridge [19] indicated that traditionally, IT has been merely an implementation tool, not intrinsically involved in shaping organization's strategy. Nevertheless, a lot of new business opportunities and channels have been introduced into the markets are developed through technological advancements, which IT role can be seen as an important element in developing long-term business strategy to the organization [45, 46]. Therefore, managers should ensure that IT and business strategy functions are completely synchronized towards common business-oriented goals. By linking business and IT strategy, the coordinated information flow should allow all parts of the firm to be more easily and quickly spot trends and use them as advantage [46].

F. IT and Competitive Advantages

Below are findings of prior researches on IT and competitive advantages:

- IT can significantly enhance competitive advantage and improve external communication [8].
- Flexibility of IT infrastructure will positively influence competitive advantage [37].
- IT enhanced customer service, service variety and service quality [6].
- IT capabilities and competencies must be considered to create competitive advantage [4].
- IT resources influence both firm capabilities and competitive advantage [19].
- Positive effect of IT capability and IT spending on operational adjustment agility, but not on market capitalizing agility [27].
- IT impact on competitive advantage can be either direct or indirect [47].
- IT can contribute to competitive advantages; however, it is not sustainable [10].
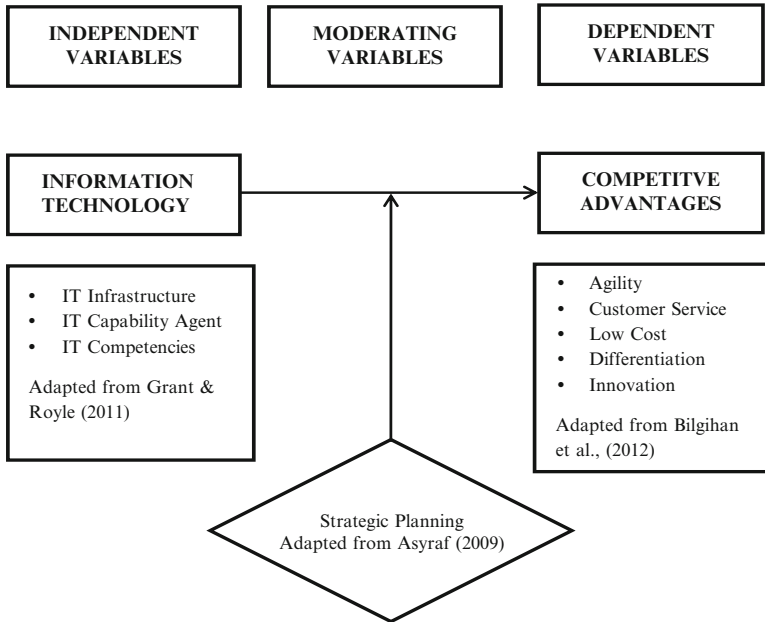
Fig. 37.1 The proposed conceptual framework for this study

- IT assets significantly influence customer service, and the relationship is moderated by financial resource [48].
- Travel agencies that have integrated IT innovation in their business strategy are likely to gain competitive advantage [49].

G. Conceptual Framework and Hypotheses

To validate the model, there are 17 hypotheses that will be tested in this study (Fig. 37.1):

H1: Information technology (IT) is positively related with competitive advantage.
H2: IT infrastructure is positively related with agility.
H3: IT infrastructure is positively related with customer service.
H4: IT infrastructure is positively related with low cost.
H5: IT infrastructure is positively related with differentiation.
H6: IT infrastructure is positively related with innovation.
H7: IT capability agent is positively related with agility.
H8: IT capability agent is positively related with customer service.
H9: IT capability agent is positively related with low cost.
H10: IT capability agent is positively related with differentiation.

H11: IT capability agent is positively related with innovation.
H12: IT competencies are positively related with agility.
H13: IT competencies are positively related with customer service.
H14: IT competencies are positively related with low cost.
H15: IT competencies are positively related with differentiation.
H16: IT competencies are positively related with innovation.
H17: The relationship between IT and competitive advantage is moderated by strategic planning.

37.4 Methodology

In achieving the objective of this study, a correlational research will be undertaken. The sampling frame will be retrieved from the registered agents' directory in the Malaysian Association of Tour and Travel Agents (MATTA) website [50], and the current population of the small and medium tour and travel agents in Kota Kinabalu, Sabah, is 192. However, only 127 will be used as a sample size of the study, subject to Krejcie and Morgan [51]'s sampling technique. Simple random sampling will be applied to sample these respondents as this technique has the least bias and offers the most generalizability [52].

The questionnaires will be developed based on the proposed theoretical framework and divided into four sections: demographic background, information technology, strategic planning and competitive advantages. The self-administered questionnaires will be mailed to the respondents, and 2 weeks will be given to them to answer the survey. A pilot test will be conducted to pretest the instrument's reliability. The data will be analysed by using the SPPSS statistical software version 21. The analyses will include descriptive profile, inferential statistic, multiple regression and linear regression analysis.

37.5 Conclusions

Based on the above discussion, it is clear that IT will lead to firm competitive advantages. IT is essential for facilitating the growth of SMEs as well as increasing the firms' competitiveness. The proposed framework recognizes the elements of IT and competitive advantages that will be used in this study. A moderator (strategic planning) is added to suit the current management trend of small and medium tourism enterprises. Although this research is purposely focusing on the IT application of small and medium tourism enterprises in Sabah, its research framework can be applied as a base model to examine different IT application in different contexts. This study suggests that IT elements such as IT infrastructure, IT

capability agent and IT competencies could assist small and medium tourism enterprises to achieve competitive advantages outcomes. However, it is worth noting that it is not the IT elements that offer the competitive advantage to a tourism enterprise, but rather, how the IT elements can be implemented and integrated with other areas through strategic planning to develop capabilities that will pull off competitive advantage.

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Chapter 38
Social Support, Academic Self-Concept, Education Goals, Academic Aspiration and Decision to Study Among Residential Students of a Malaysian Public University

Nasuddin Othman, Fauziah Noordin, Norzana Mat Nor, Zaiton Endot, and Azida Azmi

Abstract The objective of this study is to assess the level of perceived social support, academic self-concept, students' perception on decision to attend university and educational goals of residential students in a public university in Malaysia. The findings indicate that family acts as the main social support for the respondents, the respondents have high self-concept with regard to their ability to excel in the studies, and residential college students were reported to aim for the highest degree, i.e. master's degree, and also aspired to complete their current degree programme. This is an indication that the respondents aspire to pursue their education to a higher level than what they are at currently. The respondents understood what their educational goal was, and they perceived that their parents supported their career/ academic programme, and they knew the importance of getting a tertiary education for their future career purposes.

38.1 Introduction

In general, researchers have acknowledged social support and a student's social network as contributing greatly to a student's academic endeavours (for, e.g. [1–3]). Previously, social support, stress and self-efficacy were investigated to identify the relationship between these factors among first-year college students [4]. Findings suggested that students who stated that they had low levels of perceived stress, high social support and high self-efficacy levels were more likely to have higher scores on a life satisfaction measure. The influence that social support networks had on

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residential freshman students' persistence behaviours was also investigated [1]. Results of this study suggested that, compared to commuter freshman students, freshman students living in student housing facilities were more likely to persist despite experiencing sudden changes in the amount and/or significance of social relationships [1].

Social support was previously described as a complex process that involves a person interacting with the social ecological context [5]. Social support also described as involving social resources, social support appraisals and behaviour, and that maintaining a support network involves the exchanges of relationships development and maintenance. The nature of the interaction often depends on factors such as a person's coping abilities, stressors they may face or even the situations they may be faced with. It was explained that in situations of stress, a social network may self-activate, meaning that the people that comprise a person's social network may become aware of this difficulty and act in response to it even before the person elicits assistance [5]. In similar vein, it was stated that when college students enter college, they often experience changes in their social network because of both the distance from their home environment and the new college environment [1]. This change may lead to the loss of some friendships that were created before college and the addition of some friendships from college. Hence, it can be deduced that the transition to college or university is a time of vulnerability for a person's social network because many connections do not continue to be maintained, and this may influence a student's attitude and behaviour at the new environment.

Students often report that friends are a source of support during difficult times. Previously, investigation among 83 first-year college students' social support network was carried out in order to investigate the role that it plays in a student's persistence [1]. Results showed that students who reported more friendships in school were also more likely to state that they felt they were successful in their academic setting. These students were more likely to state success in learning, grades and completing tasks. Comparing commuting students with residential students, it was found previously that commuter students had an easier time dropping out of school, if that was their decision, because they had fewer ties to the campus and a social network already established at home [1].

An investigation made on the attachment to parents and social support found that students who left their families to attend college were more likely to have increased levels of perceived support from family (parents) but have higher levels of loneliness and social anxiety [6]. This may indicate that as a student transitions to college or university, he/she may feel a greater desire for the security that comes from parents and thus gain a greater appreciation for their support. In addition, the study found that students' perceptions of security in parental relationships were predictive of other positive changes in a student's expectations of support as he/she transitions to college or university. It appears that a secure parental attachment and support from family allows students to better judge other sources of support.

Previously, it was reported that a relationship exists between high self-esteem and positive self-concept as well as between high self-esteem and high academic

achievement [7]. Research also supports high academic achievement leading to higher self-esteem and higher self-esteem positively affecting self-concept [8]. Students with a positive academic self-concept are more likely to feel that they can handle more difficult academic challenges which increase the likelihood that they will take more difficult classes and have higher academic aspirations including college and/or an advanced degree [7]. Furthermore, realistic and reachable goals are more often set by high academic self-concept students which most likely result in success [7]. This success then fuels more realistic goals which most likely will continue the cycle of success. However, students identified as having low self-concept are more likely to set goals that are harder or impossible to reach which can lead to difficulty in reaching success [7].

Academic aspirations may be influenced by both internal and external factors. An investigation was made on the degree aspirations of 13,000 freshman students enrolled in 2-year private and public institutions and the degree to which internal and external factors influenced students' aspirations [9]. One-third (or 4,333) of the students surveyed stated that their aspiration was to receive an associate's degree, and more than one-fourth (or 3,250) of the students stated that they eventually wanted to attain a bachelor's or master's degree. The authors acknowledge that students appear to be entering the 2-year institutions with high academic aspirations and the goal to transfer to a 4-year institution. There were also a notable percentage of students who stated that their degree aspiration was to obtain a doctoral degree.

Based on the above discussion, the present study aimed to investigate the perception of the residential college students of a Malaysian public university in relation to social support, academic self-concept, academic aspirations, decision to study and educational goals possessed by the students. It is hoped that the findings of the present study provide practical and useful information for university administrators to make informed decisions and/or policies in relation to students' lives at the universities.

38.2   Methodology

This study used a survey research design to characterize students' perceived social support, academic self-concept, education goals and decision to stay. Questionnaires were distributed to a total of 3,050 students from various residential colleges who had agreed to participate in the research project out of which only 2,918 sets of the questionnaires were useable. This gave a response rate of 95.67 %.

The assessment instruments used in the present study were the Social Support Behaviours Scale [5] to measure five types of supportive behaviour (socializing, practical assistance, financial assistance, advice/guidance, emotional) with both family and friends scales and educational [10], decision to study [10] and the academic self-concept scales [11]. In addition, participants were asked to respond to questions written by the researchers about academic aspiration.

38.3 Results and Discussion

The respondents' profiles indicate that more than half of the respondents (63.6 %) were 21–24 years of age, 33.3 % were from 17 to 20 years age group, 2.7 % from the 25 to 28 years age group, and 0.4 % were above 29 years of age. Females (73.6 %) make up the largest group of respondents in this survey. Majority of the respondents (96.6 %) were single never married. Cronbach's alpha was used to estimate scale reliability in the present study. The Cronbach's alpha ranged 0.600 (Decision to Attend University), 0.712 (Educational Goal), 0.811 (Academic Self-Concept), 0.978 (Social Support – Friends) and 0.983 (Social Support – Family). There is an argument that reliability estimates of 0.50–0.60 are sufficient for basic research [12]. This indicates that the measures were reliable and acceptable.

A. Individual Means for Social Support

Table 38.1 indicates that the highest mean value for social support behaviour from family is 4.09 for the statement that says "Would give me advice about what to do." In addition, it also indicates that the lowest mean value is for the statement that say "Would go to a movie or concert with me" with a total mean of 3.54.

B. Individual Means for Academic Self-Concept

Table 38.2 indicates the highest mean for academic self-concept component is 4.38 for the statement that says "If I try hard enough, I will be able to get good grades" with 86.3 % of total respondents agreed. Statements "Being a student is a very rewarding experience" and "I'd like to be a much better student than I am now" indicate high mean values of 4.30 and 4.00, respectively. Hence, it may be deduced that the respondents have high self-concept with regard to their ability to excel in the studies.

C. Individual Percentages for Academic Aspiration

As shown in Table 38.3, residential college students were reported to aim for the highest degree, i.e. master's degree with the total percentages of 40.5 and 49.1, respectively. It seems that 45.6 % of the residential colleges also aspired to complete their current degree. This is an indication that the respondents aspire to pursue their education to a higher level than where they are at currently.

Table 38.1 Individual means for social support behaviour

Items	Mean (family)	SD (family)	Mean (friends)	SD (friends)
Would suggest doing something, just to take my mind off my problems	3.75	1.080	3.48	1.031
Would visit me or invite me over	3.86	1.069	3.41	1.06
Would comfort me if I was upset	3.95	1.062	3.54	1.074
Would give me a ride if I needed one	3.97	1.045	3.49	1.058
Would have lunch or dinner with me	4.00	1.057	3.67	1.053
Would look after my belongings (books, computers, etc.) for a while	4.00	1.044	3.63	1.075
Would loan me a car if I needed one	3.60	1.249	**2.89**	1.233
Would joke around or suggest doing something to cheer me up	3.91	1.056	3.64	1.064
Would go to a movie or concert with me	**3.54**	1.207	3.59	1.104
Would suggest how I could find out more about a situation	3.87	1.042	3.53	0.998
Would help me out with a move or other big chore	3.88	1.032	3.48	1.011
Would listen if I needed to talk about my feelings	3.89	1.074	3.55	1.043
Would have a good time with me	4.05	1.024	3.66	1.031
Would pay for my lunch if I was broke	4.07	1.043	3.42	1.088
Would suggest a way I might do something	4.00	1.014	3.55	1.002
Would give me encouragement to do something difficult	4.01	1.018	3.53	1.016
Would give me advice about what to do	**4.09**	0.999	3.62	0.994
Would show me that they understood how I was feeling	3.96	1.025	3.50	1.016
Would help me decide what to do	4.01	1.018	3.49	1.041
Would give me a hug or otherwise show me I was cared about	3.99	1.101	3.40	1.09
Would call me just to see how I was doing	3.99	1.032	3.31	1.056
Would help me figure out what was going on	3.96	1.005	3.42	0.992
Would help me out with some necessary purchase	3.99	1.001	3.34	1.036
Would not pass judgment on me	3.77	1.079	3.26	1.044
Would tell me who to talk to for help	3.95	1.009	3.46	1.032
Would loan me money for an indefinite period	4.07	1.004	3.26	1.094
Would be sympathetic if I was upset	4.02	1.032	3.48	1.032
Would stick by me in time of crisis or trouble	4.02	1.038	3.40	1.042
Would buy me clothes if I was short of money	4.00	1.076	2.94	1.195
Would tell me about the available choices and options	3.99	0.989	3.42	1.017
Would loan me tools, equipment or appliances if I needed them	4.04	0.988	3.42	1.054

(continued)

Table 38.1 (continued)

Items	Mean (family)	SD (family)	Mean (friends)	SD (friends)
Would give me reason why I should or should not do something	4.03	993	3.49	1.019
Would show affection for me	3.95	1.019	3.40	1.015
Would show me how to do something I didn't know how to do	4.00	1.001	3.53	1.019
Would bring me little presents of things I needed	3.91	1.032	3.29	1.063
Would tell me the best way to get something done	3.98	1.004	3.42	1.003
Would talk to other people, to arrange something for me	3.86	1.041	3.30	1.049
Would loan me money and want to "forget about it"	3.94	1.083	3.00	1.143
Would tell me what to do	3.96	1.022	3.34	1.048
Would offer me a place to stay for a while	4.07	1.017	3.38	1.036
Would help me think about a problem	4.01	1.009	3.43	1.022
Would loan me a fairly large sum of money	4.00	1.053	3.01	1.161

D. Individual Means for Educational Goal

Table 38.4 shows the individual means for each item in educational component. Based on the table, the highest mean is 3.01 for the statement "I believe my poor grades will prevent me from reaching my educational goal(s)" with 39.4 % of the total respondents agree with the statement. The results also show that the lowest mean value is 2.06 for the statement "My parents do not support my career choice/academic programme" with 69.4 % of the total respondents do not agree with the statement. This indicates that the respondents disagree that their parents did not support their career choice/academic programme. Based on these results, it appears that respondents understood what their educational goal was and they perceived that their parents supported their career/academic programme.

E. Individual Means for Decision to Attend University

Table 38.5 indicates that the statement "I am in university because getting a university degree will help me prepare for my chosen career" has the highest mean value of 4.06 with 77.2 % of total respondents agree with the statement. This shows that the respondents knew the importance of getting a tertiary education for their future career purposes.

Table 38.2 Individual means for academic self-concept

Items	Mean	SD
Being a student is a very rewarding experience	4.30	0.843
If I try hard enough, I will be able to get good grades	4.38	0.816
Most of the time my efforts in university are rewarded	3.82	0.856
No matter how hard I try I do not do well in university	3.39	1.145
I often expect to do poorly on exams	3.45	1.195
All in all, I feel I am a capable student	3.74	0.785
I do well in my courses given the amount of time I dedicate to studying	3.73	0.807
My parents are not satisfied with my grades in university	3.25	1.123
Others view me as intelligent	3.38	0.821
Most courses are very easy for me	2.76	1.048
I sometimes feel like dropping out of university	3.30	1.214
Most of my classmates do better in university than I do	2.63	0.947
Most of my lecturers think that I am a good student	3.34	0.785
At times I feel university is too difficult for me	2.72	1.038
All in all, I am proud of my grades in university	3.39	0.995
Most of the time while taking a test I feel confident	3.34	0.929
I feel capable of helping others with their class work	3.63	0.811
I feel lecturers' standards are too high for me	2.72	0.924
It is hard for me to keep up with my class work	2.89	1.002
I am satisfied with the class assignments that I turn in	3.47	0.884
At times I feel like a failure	2.95	1.127
I feel I do not study enough before a test	2.40	1.019
Most exams are easy for me	2.60	1.016
I have doubts that I will do well in my academic programme	2.74	0.907
For me, studying hard pays off	3.52	0.966
I have a hard time getting through university	2.69	0.975
I am good at scheduling my study time	3.10	0.989
I have a fairly clear sense of my academic goals	3.54	0.830
I'd like to be a much better student than I am now	4.00	0.927
I often get discouraged about university	3.03	0.966
I enjoy doing my homework	3.49	0.886
I consider myself a very good student	3.36	0.927
I usually get the grades I deserve in my courses	3.37	0.901
I do not study as much as I should	2.55	1.021
I usually feel on top of my work by finals week	3.40	0.922

38.4   Conclusions and Recommendations

The objectives of this study are to assess the level of perceived social support, academic self-concept, students' perception on decision to attend university and educational goals of the students of the residential students in a public university in Malaysia. In addition, it also examines the correlations between these variables of

Table 38.3 Individual percentages for academic aspiration

Items	Percentage (%)
What is your highest educational goal?	
To get through this semester	13.9
To complete my bachelor/bachelor in science degree	45.6
To earn a master's degree or equivalent	40.5
What is your highest educational goal you expect to reach?	
To get through this semester	13.7
To complete my bachelor/bachelor in science degree	37.3
To earn a master's degree or equivalent	49.1

Table 38.4 Individual means for educational goal

Items	Mean	SD
My financial situation may prevent me from reaching my educational goal(s)	2.85	1.205
My parents do not support my career choice/academic programme	2.06	1.155
I doubt I am smart enough to reach my educational goal(s)	2.95	1.045
No one in my family has ever reached the academic goal(s) I want to reach	2.92	1.251
I believe my poor grades will prevent me from reaching my educational goal(s)	3.01	1.237

Table 38.5 Individual means for decision to attend university

Items	Mean	SD
I am not sure why I am in university	3.93	1.099
I am in university because I want to learn new things	4.00	0.940
I thought attending university was a good idea, but now I am not sure if it is for me	3.32	1.173
I am in university because I want to earn my degree and accomplish a difficult academic goal	3.94	0.906
I am in university because I have a passion for my academic programme/future career	4.01	0.881
I am in university because getting a university degree will help me prepare for my chosen career	**4.06**	0.881
I am in university but only because my parents want me to be	**2.62**	1.238
I am in university but I don't really care about doing well or getting my degree	3.66	1.205
Total mean value	**3.69**	

interest. The findings of the study indicate that the residential college students perceived that the family acts as the main social support compared to friends; had high self-concept with regard to their ability to excel in the studies; reported to aim for the highest degree, i.e. master's degree, and also aspired to complete their current degree; understood what their educational goal was and perceived that their parents supported their career/academic programme; and knew the importance of getting a tertiary education for their future career purposes.

Based on the findings of the present study, the following recommendations are made with the intention of aiding the management of the university in its effort to improve the current situation in relation to the studied variables. The Student Affairs Department of the university, in general, and the administrators of the residential colleges, in particular, need to develop/relook/review the following:

1. Develop programmes that include family members at the residential colleges. This is because the residential college students perceived that their family is the main social support for them. In addition, the administrator of the residential colleges need to review the current programmes conducted at the residential colleges to include the elements of support, caring and sharing, and these programmes need to be evaluated to measure their effectiveness.
2. Review the roles of counsellors and career counsellors. Counsellors should conduct more programmes that appeal to the current generation. Understanding the needs and wants of the generation Y students is of prime importance. Only by understanding them can the counsellors reach out to them more efficiently and effectively.

Both the Academic Affairs Department and the Student Affairs Department should develop integrated student development programmes and better mechanisms in order to produce graduates that are align with the university vision and mission. In addition, it is recommended that both departments should strategically educate their staff, i.e. academics and administrators on matters relating to students development.

In conclusion, the Academic Affairs Department and the Students Affairs Department of the university are seen as the best supporting and/or implementing body to ensure the effectiveness of imparting the nation's agenda for the prosperous future of the students. Hence, measures recommended above should be taken seriously especially in handling issues such as reason being in the colleges and university, academic aspiration, educational goals and academic self-concept so that students would have a fulfilling and enriching (intellectually, emotionally and spiritually) university experience.

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Part III
Economics and Finance

Chapter 39
Factors Affecting External Debt in Malaysia: An Empirical Investigation

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Abstract This paper provides empirical evidence of the determinants that contribute to the factors affecting external debt in Malaysia, covering the period of 1972–2012. We use time series econometric tools to investigate the relationship among the variables. The augmented Dickey-Fuller (ADF) test, Granger causality test, and multiple regression analysis are employed in examining the factors such as the dynamic effect of gross domestic product, export, and foreign direct investment toward the level of external debt in Malaysia. The findings indicate that gross domestic product, export, and foreign direct investment are important indicators of the level of external debts. Debt management strategy is crucial for a country because excessive foreign loans could be a detriment to the country's economic situation.

Keywords Gross domestic product • Foreign direct investment • Export and external debt • Unit root • Granger causality

39.1 Introduction

The external debt can be defined as a country's debt that was borrowed from foreign lenders including governments, commercial banks, or international financial institutions. The common method that has been used for issuing external debt is through the sales of securities or bonds backed by the issuing government's credit. Malaysia is experiencing an increasing pattern of total outstanding external debt. The external debt has reach a tremendous increment which is around 406.5 % within 20 years, and at 2011, the total external debt in Malaysia is RM257 billion.

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The main purpose of this paper is to investigate the factors that influence the external debt in Malaysia and to provide some empirical evidence on the existing relationship between external debt and gross domestic product, exports, and foreign direct investment.

39.2   Literature Review

The external debt is an important tool to complement domestic project finance in the economy. The external debt provides longer maturity than domestic debt to the borrower, and at the same time, it reduces the risk and it is proven safer than domestic debt [1].

Reference [2] conducts a study between the external debt and economic growth in Nigeria, and they find that there is negative short-term relationship between economic growth and the present level of external debt. In their research, they use external debt, real GDP, external debt services, government expenditure, consumption, trade balance, and capital formation as their independent variables and GDP as dependent variable.

Reference [3] investigates the relationship between debt and gross domestic product. Their finding shows that there is a negative effect of debt on growth. Most of the investors that invest in foreign direct investment have more interest to invest in the countries that have a long-term vision. High external debt of the countries will make it less attractive for investors to invest in the country because they know that the countries' ability to repay will further deteriorate if they suffer severe budget deficits [4].

Reference [5] examines the relationship between external debt burden and foreign investment burden in a developing country such as Nigeria, and they found that there exists directional causality between external debt and foreign direct investment. Reference [6] points out that there is a bidirectional causality between economic growth and external debt servicing, unidirectional causality running from exports to external debt, and unidirectional causality flows from exchange rate to economic growth.

Reference [7] investigates the relationship between external debt and gross domestic product. Their finding shows that there is a statistically significant negative effect of growth on external debt for a long-run and short-run investigation. In this study, they use an external debt as the dependent variable and growth and military expenditures as their independent variable.

Reference [8] studies the factors affecting the external debt in South Asian countries. By using a multiple regression analysis, the result shows the positive relationship between external debt and export for Bangladesh and Bhutan. For foreign direct investment and external debt, it shows that there is a negative relationship, and it only happens for Sri Lanka and Bangladesh.

39.3   Methodology

The study employs the data extracted from the World Bank, which utilizes annual data for the period of 41 years ranging from 1972 to 2012. All variables are measured in US dollar terms. The augmented Dickey-Fuller (ADF) test, Granger causality test, and multiple regression analysis are employed in examining the factors such as the dynamic effect of gross domestic product, export, and foreign direct investment toward the level of external debt. The relationship between all variables is investigated in the form of the multiple regression function as follows:

$$ED = a + \beta_1 GDP_t + \beta_2 FDI_t + \beta_3 EX_t + u_t \qquad (39.1)$$

where

$ED = External\ Debt$
$GDP = Gross\ Domestic\ Product$
$FDI = Foreign\ Direct\ Investment$
$EX = Export$
$u = $ Estimation of Error

39.4   Empirical Findings and Discussion

Based on Table 39.1, the result shows that gross domestic product has very strong positive relationship, 93 % with external debt. The foreign direct investment also has very strong relationship, 75.42 % with external debt, and export also has very strong relationship, that is, 95.99 % with external debt. Based on these multiple regression results, the final model that explained the factor that influence external debt is

$$y = 1.6300 - 0.0599x_1 - 0.4505x_2 + 0.1795x_3$$

where

$y = $ External Debt
$x_1 = $ Gross Domestic Product
$x_2 = $ Foreign Direct Investment
$x_3 = $ Export

The result is shown in Table 39.2. The result that shows the R-squared for all variables was 94 %. It means that 94 % variation that affects the external debt can be explained jointly by three independent variables which are gross domestic product, foreign direct investment, and exports. The rest of the 6 % variation in external debt can be explained by residuals or other than all the variables that are

stated. Adjusted R-squared which is 93.52 % is explained by the independent variables, while the rest of 6.48 % is still left unexplained.

The coefficient value from Table 39.2 shows that there is a negative or positive relationship between dependent and independent variables. For gross domestic product, there is a negative relationship between external debt and gross domestic product. When gross domestic product increases by 1 unit, it will lead the external debt to decrease by 0.0599 units. Same goes to foreign direct investment where it indicates a negative relationship with external debt. When foreign direct investment increases by 1 unit, it will lead the external debt to decrease by 0.4505 units. However, there is a positive relationship between export and external debt. When exports are increased by 1 unit, it will lead the external debt to increase by 0.1795 units.

As indicated in Table 39.4, by using augmented Dickey-Fuller (ADF) test, the result can be determined rather at level or at first difference using the *p*-value. *P*-value must be less than the significant level 0.05. All variables that are not significant at level mean that all variable is nonstationary. At first difference, all value is less than the significant level. This means all variable is stationary. At level, all variables accept the null hypothesis. At first difference, all variables reject the null hypothesis at conventional test sizes. These results are consistent with the notion that most of the macroeconomic variables are nonstationary at level, but become stationary after the first difference [9].

The result is shown in Table 39.5. By taking a 2-year lag value, the relationship is observed between gross domestic product and external debt, as its *F*-stat is 2.15215 which is significant at 5 % level of significance. The null hypothesis which states that gross domestic product does not Granger cause external debt is accepted. There is no causality between gross domestic product and external debt. The relationship between foreign direct investment and external debt, as its *F*-stat is 4.18155, has a bidirectional causality. The null hypothesis which states that foreign direct investment does not Granger cause is rejected.

39.5   Discussion

To be sustained, the Malaysian government has to borrow either from a local bank or from a foreign country because there is no other alternative without borrowing due to the lack of fund. Our study suggests that there is a significant but negative relation between GDP and external debt, and the finding is consistent with [2] and [10].

Our study suggests that there is a significant but negative relation between FDI and external debt, and the finding is consistent with [11] and [12]. The Malaysian government should promote the foreign investors to invest in our country to improve the performance of the economy. But a large number of external debts will influence the investors when determining both the location of their foreign investments and the type of investment.

To sustain the level of external debt, Malaysia should have the level external debt along with a relative higher level of exports. If it is not sustainable, it will impose higher risk to the economic prosperity. Our study suggests that there is a significant and positive relationship between exports and external debt. The causality between external debt and export is unidirectional causality, and the finding is consistent with [6].

39.6   Conclusions and Recommendations

After completing all the observation and analysis on three factors that influence the external debt, all independent variables have a significant relationship with the dependent variable. The correlation test result shows that the exports have the strongest relationship with external debt among others. Export activity gives a capital or money to pay the debt reliant on another big loan for the cost of development. Foreign direct investment has a negative relationship with external debt which is supported by past researchers where they get a negative relationship result between foreign direct investment and external debt. For gross domestic product, the relationship with external debt is a negative relationship which means that if the gross domestic product is increased, the external debts will decrease. Based on the findings, there are some recommendations. As we know that excessive external debt gives a negative impact to the country, there are several suggestions that can be made. First is to increase the foreign direct investment because foreign direct investment can provide capital for the investment, due to which lot of new job opportunities take place. Besides that, it also brings new technology, improved business structures, and new managerial skills.

As a result, Malaysia will not only depend on external debt anymore because it has its own capital. Second is to promote the export because export activity will give an impact to the employment sector. Increasing in exports will affect the gross domestic product to be increased too. When the gross domestic product is increased, it means the country will get more income and a higher standard of living.

Appendices

Table 39.1 Correlation analysis

	ED	GDP	FDI	EXPORT
ED	1.000000	0.930012	0.754195	0.95993
GDP	0.930012	1.000000	0.855866	0.986953
FDI	0.754195	0.855866	1.000000	0.845480
EXPORT	0.959930	0.986953	0.845480	1.000000

Table 39.2 Ordinary least square

Variable	Coefficient	T-statistic	Probability
Dependent variable: external debt			
Included observation: 41			
C	1.63000000	3.053190	0.0042
GDP	−0.059863	−2.084478	0.0441
FDI	−0.450510	−2.067556	0.0457
Export	0.179530	6.508239	0.0000
R-squared	0.940061		
Adj. R-squared	0.935202		
F-statistic	193.4330		
Prob (F-statistic)	0.000000		

Table 39.3 T-statistic table

Variables	T-statistic	Findings
GDP	2.084 > 2.021	Statistically significant
FDI	2.068 > 2.021	Statistically significant
EX	6.508 > 2.021	Statistically significant

Table 39.4 Unit root test

Variables	Augmented Dickey-Fuller (ADF) unit root test			
	Level		1st difference	
External debt	0.9903	Nonstationary	0.0001	Stationary
GDP	1.0000	Nonstationary	0.0001	Stationary
FDI	0.3123	Nonstationary	0.0000	Stationary
Export	1.0000	Nonstationary	0.0000	Stationary

Table 39.5 Granger causality test

Null hypothesis	Obs	F-statistic	Prob.	Causality
GDP does not Granger cause ED	39	2.15215	0.1318	No causality
ED does not Granger cause GDP		0.09857	0.9064	
FDI does not Granger cause ED	39	4.18155	0.0238	Bidirectional causality
ED does not Granger cause FDI		4.53966	0.0179	
EX does not Granger cause ED	39	3.52152	0.0407	Unidirectional causality
ED does not Granger cause EX		0.26355	0.7699	
FDI does not Granger cause GDP	39	3.80712	0.0322	Unidirectional causality
GDP does not Granger cause FDI		13.5444	5.0000	
EX does not Granger cause GDP	39	0.35647	0.7027	No causality
GDP does not Granger cause EX		2.40277	0.1057	
EX does not Granger cause FDI	39	11.6743	0.0001	Bidirectional causality
FDI does not Granger cause EX		3.85895	0.0309	

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Chapter 40
Relationship Between Foreign Direct Investment and Financial Development

Empirical Evidence from ASEAN-5

Azlina Hanif and Sazlin Suhalmie Mohd Shariff

Abstract Foreign direct investment exerts a positive effect on economic growth only if a country has a well-functioning financial system. Thus, the objective of this paper is to examine the relationship between foreign direct investment and financial development in five selected ASEAN countries such as Malaysia, Indonesia, Singapore, Thailand, and the Philippines. The Pedroni panel cointegration test is conducted to ascertain the presence of long-run relationship between foreign direct investment and financial development. The results obtained demonstrate that there is indeed a long-run relationship between the variables. The causality tests employed by the study found several interesting outcomes. First, there is no causal relationship between foreign direct investment and domestic credit by banking sector, but there is a unidirectional causal relationship between foreign direct investment and domestic credit to private sector. Second, there exists a unidirectional causal relationship between market capitalization value and foreign direct investment, but a bidirectional causal relationship between foreign direct investment and stock value traded. Policy makers are recommended to improve the quality of financial system so that the ASEAN countries could enjoy the maximum benefits of foreign direct investment.

Keywords Foreign direct investment • Financial development • ASEAN • Panel • Cointegration

40.1 Introduction

Of late, multinational corporations have greatly expanded and strengthened their global business through foreign direct investments (FDI) in several developing countries. Through FDI, it is possible for both home and host countries to get

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productivity gain, technology transfer, better managerial skills, and access to international markets through exports and imports. These benefits will spill over into the economy in the form of higher economic growth. Recent studies have shown that FDI has important and steady effects on economic growth. However, besides FDI, financial development has also become an integral component of the growth process of an economy. Reference [1] have found that a country can only benefit from FDI after its country's financial development exceeds a threshold level. Only then would FDI exert a positive effect on economic growth.

While the links between FDI, financial development, and economic growth have been documented through several empirical studies, little work has been done to examine the direct relationship between FDI and financial development. The development of the banking system and the level of stock market activities could reflect financial development. Using the panel cointegration technique, the present study seeks to examine whether FDI leads to financial development, thereby increasing the probability for enhanced economic growth, in five ASEAN nations, namely, Malaysia, Indonesia, Singapore, Thailand, and the Philippines. In this study, FDI and financial development are expected to have a two-way relationship. This study is an attempt to examine if a well-functioning financial system could affect FDI inflows into the five ASEAN countries. Specifically, the study seeks to investigate whether there is a long-run as well as causal relationship between FDI and financial development. It also attempts to identify whether it is the credit market or the stock market that affects FDI.

The Pedroni panel cointegration test and causality test are employed in the study that covers the period between 1990 and 2011. Due to data limitation, the analysis is restricted to only the five ASEAN countries mentioned earlier. Compared to existing research, this study provides added value as it involves a more recent time frame, the use of panel data analysis, and the use of a different financial development indicator.

40.2   Review of Existing Studies

There is no specific theory that discusses the effect of financial development on FDI except the fundamental idea based on the neoliberal approach that explained that greater availability of funds in the economy would tend to increase investments. Generally, economic theory predicts that private investment and financial intermediary development contribute in a momentous way to each other. According to [2], more investment raises the rate of economic growth, stimulating financial development. On the other hand, the endogenous finance-growth models [2–4] suggest that financial markets have an important role in channeling investment capital to its highest-valued use. Reference [5] suggest that a relatively well-developed stock market surges the liquidity of listed companies and may finally ease the cost of capital, therefore rendering the country attractive to foreign investment. Financial intermediaries tend to encourage a portfolio allocation in favor of productive

investment by offering liquidity to savers, easing liquidity risks, reducing resource mobilization costs, and exerting corporate control. It seems apt to wonder if what is possible in theory is consistent with reality.

There are an increasing number of empirical studies that investigate the effects of FDI and financial development on economic growth. However, there are very little theoretical or empirical studies that address the direct relationship between FDI and financial development [6, 7]. The present literature on ASEAN in relation to this subject matter is also insufficient.

Based on previous studies, the relationship between FDI and financial development may be viewed in two ways. The first view indicates that there is a negative relationship between FDI and financial development whereby countries that have less developed financial system tend to have high level of FDI [8]. Reference [9] suggest that FDI has become a substitute to financial development since FDI takes place to overcome the difficulties of investing through capital market. The second view believes that there is a positive correlation between FDI and financial development. Reference [10] in their study on the role of financial market development in the financing choice of firms in 21 developing countries over the period 1980–1997 found that FDI and investment, as proportion of GDP, are positively correlated with financial development. Financial development was represented by stock market variables and banking sector variables. Reference [11] also found similar results when he examined the relationship between FDI and stock market development in four Latin American countries from 1988 to 2002.

Reference [12] found that FDI itself plays an indefinite role in contributing to economic growth. Countries with well-developed financial markets gain significantly from FDI as compared to countries with weaker financial markets. Furthermore, [13] in his study also found that stock market liberalization, increase in private investment, and increase in the ratio of FDI to private investment would affect the sum of private investment and FDI. He argued that this might happen due to the positive correlation between stock market liberalization and other changes that may reduce the operating risk that the multinational companies may face in that particular country. Positive correlation between stock liberalization and other economic developments that may increase the future expected cash flow is also found to increase FDI.

Similarly, [6] who analyzed the relationship between FDI and financial development in 14 Latin American countries from 1978 to 2007 found that the amount of FDI inflows into the country critically depends on the functioning of its financial market. Based on the Granger causality test, FDI and financial developments have a unidirectional relationship from banking sector development to FDI. On the other hand, the relationship between FDI and stock market development is found to be bidirectional. The authors argued that these results indicate that FDI could primarily enhance stock market by using its spillover effect and that stock market development can attract more FDI in turn.

Reference [14] on the other hand examined the link between FDI, financial development, and political risk. Using panel data of 97 countries for over 20 years, they established a nonlinear relationship among the variables. They found that FDI

inflows would only increase until financial development has reached a certain threshold level. Further than the threshold level of financial development, the impact of financial development on FDI becomes negative.

Equally important, [15], using a trivariate framework which applies the Granger causality tests in a vector error correction (VEC), found that financial development does matter for the benefits of FDI to take place in Cote' d'Ivoire, the Gambia, Ghana, Nigeria, and Sierra Leone. However, the results depend on which financial indicator is used.

There is also a situation when FDI can affect financial development. Reference [16] in their study used annual data for a panel of eight developing countries and vector autoregressive (VAR) from 1976 to 2005 to investigate whether FDI can stimulate financial development or not. The authors found that the existence of causality link from FDI to financial markets has been approved at 5 % significance level in five countries. Their results suggest that FDI can, through its positive spillover effect, make the countries richer and tends to be a factor that can boost financial development.

The role of financial development on FDI in stimulating economic growth is still uncertain. Reference [17] who conducted a study on a panel of 25 countries between 1975 and 2002 found that countries that have higher GDP per capita and more developed financial markets tend to have bidirectional causality relationship between FDI and financial market development.

In the same way, [18] examined the effects of financial market development on FDI inflows using a pooled data from 15 Latin American countries from 1978 to 2003. Results from the study indicate that FDI is positively correlated with trading volume. Trading volume has become one of the important variables that reflect the development of the stock market. Besides, the author also found that the level of private credit offered by the banking sector has positive and significant correlation with FDI. Overall, the outcome from the study signals that financial development and institutional condition affect FDI inflows.

Furthermore, [7] also examined the relationship between FDI and financial market development. In the study, they divided financial development into two sectors which are stock market development and banking sector development. Using VAR system and also a simultaneous equation, they found that there is bidirectional causality between FDI and stock market development indicator. However, they found inconclusive and ambiguous relationship between banking sector development and FDI. They suggest that the result of the relationship depends on which indicator is used to represent financial development.

From the review, it appears that there is no strong evidence in favor of the positive impact of banking sector development or stock market development, each representing financial development, on FDI. Results are found to be varying for different time periods, indicators used, and country groups that were included in the study. However, stock market development is mostly found to be significant in influencing FDI. Besides, the relationship between FDI and financial development could be varying due to the threshold level of the economic or financial indicator in

the recipient countries. Ultimately, the financial market condition is found to be a critical factor in affecting FDI inflows in particular countries.

40.3 Theoretical Framework

Theoretically, the causal relationship between FDI and financial market development has been explained in terms of two phenomena. First, [5, 13] and others argue that when FDI inflow increases, the available funds in the economy also would increase. Besides, it will also cause the financial intermediation to boom through the stock market and banking sector's development. Generally, multinational corporations that are involved with FDI are also likely to list their shares on the local stock market.

Second, foreign investors also can be attracted to do FDI in a country that has relatively well-functioning financial market. This is because well-functioning financial markets represent the sign of vitality, openness on the part of country authorities, and a market-friendly environment. Besides that, a relatively well-developed stock market also tends to increase the liquidity of listed companies and may eventually decrease the cost of capital, thus rendering the country to be attractive for FDI activities [5].

The present study uses net FDI to represent the FDI variable. The abbreviation FDIV is used to represent the value of FDI net inflows. Meanwhile, the measurement for financial development is still not sufficiently clear. Nevertheless, the empirical literature has proposed several measures for determining financial development. To determine and measure financial development, this study divides it into two, which are banking sector development (BSD) and stock market development (SMD). To represent BSD, as proposed by [19–21], this study focuses on two variables, which are bank credit (DCBS) and private sector credit (DCPS). As for SMD, two indicators proposed by [19] will be used. They are the value of stock market capitalization (MCAPV) and the stock value traded (SVTV). Real gross domestic product (RGDP) is also used as a proxy for the size of the economy.

A. Model Specification

In this study, the regression equations are specified as follows:

$$\text{FDI}_{it} = a_0 + a_1 \text{FD}_{it} + a_2 \text{RGDP}_{it} + \varepsilon_{it}, \qquad (40.1)$$

$$\text{FD}_{it} = b_0 + b_1 \text{FDI}_{it} + b_2 \text{RGDP}_{it} + \nu_{it}. \qquad (40.2)$$

where FDI = net FDI inflow and FD = financial development variables represented

by bank credit, private sector credit, stock market capitalization, and stock value traded.

In order to see the individual effect of the relationship between FDI and financial development, the model has been separated into four models, each represented by different indicators of financial development for each model.

40.4 Method of Analysis

Since this study involves both time-series and cross-section analyses, it is suitable to use panel analysis to ascertain the relationship between FDI and financial development. Panel analysis has the advantage of taking the heterogeneity of each cross-sectional unit by taking into account the individual specification effect. According to [22], panel data analysis allows less collinearity among variables and more degrees of freedom and is more efficient if compared with time-series analysis. Furthermore, pooling the data will increase the sample size and the efficiency of the parameter since it adjusts the autocorrelation in the time-series data and heteroskedasticity of error term. Considering the nature of data as well as the advantages of panel data analysis, this study proposed to pool the five cross-sectional data (Malaysia, Indonesia, Singapore, Thailand, and the Philippines) over a 22-year time period (which covers from year 1990 until 2011) into a panel data set. Thus, to examine the link between FDI and financial development for the five selected ASEAN countries, panel unit root tests are conducted to find if there is a cointegrated vector; after which, the long-run relationship between the variables is examined using the Pedroni cointegration test. Then, causality tests were employed to determine the causal relationship between the variables.

For the panel unit root test, this study would use the Phillips-Perron test. Then, the Pedroni cointegration test methodology is applied. Reference [23] proposed seven different statistics to test for panel data cointegration. Out of these seven statistics, four are based on pooling, what is referred to as the "within" dimension, and the last three are based on the "between" dimension. Both kinds of the tests focus on the null hypothesis of no cointegration. However, the distinction comes from the specification of the alternative hypothesis. For the tests based on "within," the alternative hypothesis is $\rho_i = \rho < 1$ for all i, while concerning the last three test statistics which are based on the "between" dimension, the alternative hypothesis is $\rho_i < 1$ for all i. Pedroni has tabulated the finite sample distribution for the seven statistics via Monte Carlo simulations. The calculated test statistics must be larger than the tabulated critical value to reject the null hypothesis of the absence of cointegration. The last procedure to examine the causality effect between the variables is to conduct the causality test.

Table 40.1   Panel unit root test result (Phillips-Perron test)

Panel level series			Panel first-difference series	
	Intercept	Intercept and trend	Intercept	Intercept and trend
FDIV	12.9853 (0.2245)	16.2443 (0.0929)	99.3753 (0.0000) ***	104.914 (0.0000) ***
DCBS	10.8820 (0.3668)	4.87696 (0.8992)	41.5821 (0.0000) ***	31.9877 (0.0004) ***
DCPS	10.6265 (0.3873)	5.33900 (0.8674)	37.6314 (0.0000) ***	26.5135 (0.0031) ***
MCAP	3.855543 (0.9536)	9.68202 (0.4688)	119.388 (0.0000) ***	95.4729 (0.0000) ***
SVTV	6.89619 (0.7352)	5.85185 (0.8276)	78.6633 (0.0000) ***	61.7253 (0.0000) ***
RGDP	0.33098 (1.0000)	2.43708 (0.9918)	47.6335 (0.0000) ***	49.6790 (0.0000) ***

*** denotes rejection of null hypothesis at the 1 % level of significance

40.5   Findings

A. Panel Unit Root Test Results

Results for panel level series and panel first-difference series are tabulated in the same table for the convenience of the interpretation of the result (see Table 40.1).

As illustrated in Table 40.1, all the variables are stationary at first difference or integrated at I(1). Therefore, the test for panel cointegration and causality test between FDI and financial development can be implemented.

B. Panel Cointegration Test Results

Before conducting the cointegration test, the model must be identified as either homogeneous or heterogeneous. A heterogeneous panel data model is a model in which all parameters are constant and slope coefficient varies across individuals, while a homogeneous panel data model or pooled model is a model in which all parameters are constant and slope coefficient is common. In order to identify the characteristic of the model, the fixed random test has been applied. Results show that the model is suitable to use random effect model, which is applied for heterogeneous model. Since this study involves a heterogeneous panel data model, the [23] test for cointegration in heterogeneous panel is used.

In Table 40.2, there are seven statistics provided to check whether the panel data are cointegrated or not. Out of these seven statistics, four are based on pooling, what is referred to as the "within" dimension, and the last three are based on the "between" dimension. Both kinds of tests focus on the null hypothesis of no

Table 40.2 Pedroni panel cointegration test results

	Model 1 (DCBS)	Model 2 (DCPS)	Model 3 (MCAPV)	Model 4 (SVTV)
Probability				
Panel v-statistic	0.2980	0.4510	0.0171**	0.0506**
Panel rho-statistic	0.2315	0.1581	0.1049	0.0869
Panel PP-statistic	0.0001***	0.0002***	0.0002***	0.0000***
Panel ADF-statistic	0.0315**	0.0633	0.1605	0.1452
Group rho-statistic	0.6618	0.5389	0.4793	0.4317
Group PP-statistic	0.0000***	0.0000***	0.0011***	0.0000***
Group ADF-statistic	0.0277**	0.0535**	0.1685	0.1267

*** and ** denote the significant level of 1 and 5 %, respectively. The variables indicated in parentheses represent the financial development variable for each model. DCBS and DCPS are used as indicators for banking sector development, in models 1 and 2, respectively. MCAPV and SVTV, on the other hand, represent different indicators of stock market development in models 3 and 4, respectively

cointegration. The results for model 1 show that there is a strong cointegrating relationship between the variables since two out of the seven test statistics reject the null hypothesis that there is no cointegration at 1% and the other two out of the seven test statistics reject the null at 5 %. References [24] and [25] have supported the rejection of null hypothesis at 1 and 5 %, respectively.

As for models 2, 3, and 4, the cointegrating relationship between the variable is quite similar for the relationship between FDI and DCPS, FDI and MCAPV, and FDI and SVTV. The fact that three out of seven statistical tests were significant, it shows that there is no strong cointegrating relationship between the variables. However, the test results generally prove that there exists a long-run relationship between FDI and financial development.

C. Granger Causality Test Results

Table 40.3 presents the results of causality tests between FDI and DCBS and FDI and DCPS. It appears that there is no causal relationship between FDI and DCBS, while there is unidirectional causality between FDI and DCPS. The result suggests that FDI inflow precedes DCPS.

Table 40.4 presents the results of causality tests between FDI and MCAPV and FDI and SVTV. The results indicate that MCAPV Granger causes FDIV and that FDIV Granger does not cause MCAPV. Thus, it shows that for the relationship between FDI and MCAPV, there is unidirectional causality relationship between both variables. Table 40.4 also illustrates causality between FDI and SVTV. It shows that there is bidirectional causality between both variables because SVTV

Table 40.3 Causality test results between FDI and banking sector development

Null hypothesis	Obs	F-statistic	Prob.
DCBS does not Granger-cause FDIV	105	0.02106	0.8849
FDIV does not Granger-cause DCBS		0.68810	0.4087
DCPS does not Granger-cause FDIV	95	0.06596	0.9778
FDIV does not Granger-cause DCPS		3.11675	0.0302

Table 40.4 Causality test results between FDI and stock market development

Null hypothesis	Obs	F-statistic	Prob.
MCAPV does not Granger-cause FDIV	105	5.97135	0.0163
FDIV does not Granger-cause MCAPV		1.03496	0.3114
SVTV does not Granger-cause FDIV	100	7.89732	0.0007
FDIV does not Granger-cause SVTV		3.32421	0.0402

does cause FDIV and FDIV also causes SVTV. The results suggest that the high value of stock traded precedes FDI inflows. Thus, a well-functioning financial development can be a pull factor that attracts foreign investments. The results also show that high FDI inflows precede the increase in the stock value traded.

40.6   Conclusion

This study has found that there is a meaningful relationship between FDI and financial development in the long run. Additionally, results point to the fact that there is no causal relationship between FDI and credit provided by the banking sector. Both variables did not cause each other. However, FDIV is found to Granger-cause DCPS, which means that an increase in FDI will also increase the amount of domestic credit to private sector. Moreover, increases in the amount of FDI inflows also tend to increase the value of market capitalization. This result, similar to the findings of [6], implies that FDI could initially enhance the stock market through its positive spillover effect. Besides that, increases in the inflows of FDI could also cause the amount of stock value traded to increase. Similarly, when stock value traded increases, it could also increase the FDI inflows since both variables have bidirectional causal relationship. This result does not only support the result found by [17] but also [7] who found a bidirectional relationship between FDI and stock market development indicator.

In short, the results from the causality tests show little support that FDI can contribute to the development of banking sector in the five selected ASEAN countries. However, there is enough evidence that shows FDI and stock market development can affect each other. It means that the stock market in these five selected ASEAN countries plays an important role in attracting FDI into the country. This finding supports the neoliberal approach in that financial deepening

plays a role in stimulating investment. On the other hand, FDI inflows to these ASEAN countries also contribute to the development of the stock market since investors that do FDI are likely to list their shares on the local stock market as sources for financial capital.

Based on the findings from this study, ASEAN countries should continue to improve the quality of the local financial system to make them more attractive for investors to come and invest in their respective countries. Policy makers should reform the investment regulatory framework to be more investor friendly. This should be followed by liberalization of FDI policies since it will attract and push FDI from abroad. However, it must be taken with full comprehensive preparation so that it would not affect the domestic investment and domestic industry. Additionally, policy makers should implement policies that can promote macroeconomic stability to boost the confidence of investors to do FDI in the country and improve the physical infrastructure as well as the quality of labor in the country. Last but not least, in order for each ASEAN nation to enjoy the benefits of FDI, they should enhance their intra-ASEAN FDI as well as deepen the regional market integration.

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Chapter 41
Short-Run Performance of Malaysian Acquiring Firms in Cross-Border Mergers and Acquisitions

Kamal Fahrulrazy Rahim, Noryati Ahmad, Ismail Ahmad, and Fahmi Abdul Rahim

Abstract It is reported that Malaysian firms' aggressive involvement in cross-border merger and acquisition (CBMA) deals started in the early 1990s. This research aims to examine the short-run performance of Malaysian acquiring firms listed on Bursa Malaysia by using abnormal return (AR) and cumulative abnormal return (CAR) for event window $(-90, +90)$, $(-60, +60)$ and $(-30, +30)$. CAR is the proxy for shareholders value creation to measure the short-run performance. Event study method and regression analysis are applied for the study period 2000–2011. The result shows that both firm-specific determinants and macroeconomic variables contribute to the shareholder value creation and are statistically significant for the Malaysian acquiring firms in cross-border mergers and acquisitions. However, only six determinants are parallel with the hypothesized statements.

Keywords Cross-border mergers and acquisitions • Efficiency • Data envelopment analysis • Malaysia

41.1 Introduction

Malaysia is one of the developing countries that experienced rapid growth, transforming itself from an agriculture-based economy to an industrial-based economy. In June 2011, Malaysia has been classified as an advanced emerging market by FTSE Group. This is recognition for the continuous effort and commitment by

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the government, regulators and market participants to build a high-quality market which will attract more investment from global investors. For decades, Malaysia has been following prudent macroeconomic policies, focusing on low inflation, strong external reserves and current account surpluses.

Ashok and Shoko [1] explained that CBMA in Asian countries such as Indonesia, Korea, Malaysia and Thailand rose sharply in value from US$3 billion in 1996 to US$22 billion in 1999, before falling slightly to US$18 billion in 2000. In 2004, Japan, China and ASEAN regions together accounted for 15.9 % of the world's merger and acquisition (M&A) deals and 7.7 % of the world's M&A transaction value [2]. Asian countries are foreseeable as the faster growing in terms of economy compared to other regions in the world and are playing increasingly important roles in the international trade and global investment. In lieu of this progression, it is anticipated that there will be more CBMA involving the companies from Asian countries in the future.

41.2 Statement of Problems

The study of short-run performance of acquiring firms in M&A is not new. In developed countries such as the United States and United Kingdom, many studies have been carried out to test for short-run performance in M&A, but there are numbers of issues which are still controversial with equivocal research findings. Recent study by [3] focuses on CBMA that incorporates financial and economic (both macro and micro) underpinning which effect their direction and magnitude. In Malaysia, [4] urged that there is a lack of empirical research on the economic consequences of the firms involved in M&A, particularly in an emerging market. None of the studies on corporate M&A activities in Malaysia is comprehensive to conclusively establish the economic gain in M&A of the bidder and target firms. She also suggested future researchers to study on areas related to CBMA of Malaysian firms that are still scarce. Her suggestion is supported with the statement made by [5] on the very few academic papers focusing on the financial impact on the emerging market companies of CBMA. The increasing trend towards CBMA by firms from emerging market and insufficient research in this area creates the need to address whether the extant conceptual framework and empirical evidence on international CBMA are relevant for acquirers outside the developed countries.

Therefore, this study tries to fill this research gap by investigating the internal and economic determinants of CBMA within the advanced emerging market acquiring firms as suggested by [3–5].

41.3 Literature Review

In addition, there are inconclusive findings on shareholder value creation from mergers and acquisitions by previous researchers. Conn et al. [6], Black et al. [7] and Francis et al. [8] found out that the announcement of cross-border acquisitions resulted in positive abnormal returns. Glamour acquirers generated more value in cross-border acquisitions of public firms, while value and high technology acquirers and a higher cultural difference resulted in a greater value creation in the cross-border acquisition of private firms. Meanwhile, [9–12] showed insignificant effect between announcements of acquisitions on shareholders' wealth.

41.4 Research Methodology

An event study is carried out to examine the share price behaviour of bidding firms and target firms over the specified period of time. This study focuses on how security prices respond to the information released during a public announcement of a specific event of a firm in the case of M&A. Franks et al. [13] commented that the market begins to anticipate mergers on average of at least 3 months prior to the announcement date. Daily historical prices for the stock of acquiring companies as well as market index are obtained from data stream. The sample comprises 285 transactions of CBMA throughout 2000–2011. From 285 CBMA, only 73 transactions are considered as the final sample in this study that exceeds the limitation set in this research. The daily realized returns (R_{it}) for each day t for the event window [−90; +90], [−60; +60] and [−30; +30] are computed. The daily abnormal returns (AR_{it}) are obtained as differences of realized and predicted returns on day t in the event period.

$$AR_{it} = R_{it} - (\propto + \beta_i R_{mt}) \tag{41.1}$$

where

$$R_{it} = (P_1 - P_0)/P_0 \tag{41.2}$$

where R_{it} is the return of stock i at time t and R_{mt} is the market index return at time t.

According to [14], the market model represents a potential improvement over the traditional constant mean return model, because by removing the portion of the return that is related to a variation in the market's return, the variance of the AR is reduced. This can lead to an increased chance of detecting event effects. The daily average abnormal returns (AR_t) and cumulative abnormal returns (CAR_t) for each day t for the event window [−90; +90], [60; +60] and [−30; +30] are computed as follows:

$$AR_t = \frac{1}{n}\sum_{t=1}^{n} AR_{it} \qquad (41.3)$$

$$CAR_t = \sum_{t=t1}^{n} AR_t \qquad (41.4)$$

where t_1 represents the first day of event window, t_2 represents the last day of the event window and n represents the number of transactions in the sample.

This research also uses hypothesis testing to test relationship between the dependent variable with independent variables. Cumulative abnormal returns (CAR), the dependent variable, are used as a proxy for the short-run shareholder value creation. Sanjai et al. [5] used CAR to test the determinants of cross-sectional variation with classical factors and governance factors. Board size, independent board of director, market-to-book ratio, free cash flow, financial leverage, liquidity, firm AGE, gross domestic product and corporate tax rate are the independent variables for this study. Table 41.1 shows the statement of hypotheses developed for this study.

Lastly, a cross-sectional regression analysis is applied to show the relationship between dependent and independent variables at one period in time. The determinants of acquiring firms in CBMA are examined with shareholder value creation (CAR) through cross-sectional regression analysis. The general cross-sectional regression model is expressed below.

$$\begin{aligned} CAR = \alpha i &+ \beta 1 \text{ BOARD SIZE} + \beta 2 \text{ IND. DIRECTOR} + \beta 3 \text{ MTB} \\ &+ \beta 4 \text{ FCF} + \beta 5 \text{ LEV} + \beta 6 \text{ LIQ} + \beta 7 \text{ AGE} + \beta 8 \text{ SIZE} \\ &+ \beta 9 \text{ GRO} + \beta 10 \text{ GDP} - \beta 11 \text{ TAX} - \beta 12 \text{ FOREX} + e_{it} \end{aligned} \qquad (41.5)$$

41.5 Results and Discussion

A. *Findings for Event Window (−90, +90)*

Table 41.2 provides the statistical results of the event window (−90, +90) based on 73 CBMA transactions of Malaysian acquiring firms by using E-Views statistical package. The cross-sectional regression model is spelt out as follows:

$$\begin{aligned} CAR_{(-90,+90)} = 5.8686 &+ 0.1445 \text{ BOARD SIZE} + -0.0103 \text{ IND. DIRECTOR} \\ &+ -0.0088 \text{ MTB} + 0.0000000354 \text{ FCF} + -0.0009 \text{ LEV} + 0.6207 \text{ LIQ} \\ &+ 0.0896 \text{ AGE} + -0.3803 \text{ SIZE} + 0.1524 \text{GRO} + -0.0132 \text{ GDP} \\ &+ -0.1086 \text{ TAX} + 0.7958 \text{ FOREX} + e_{it} \end{aligned}$$

$$(41.6)$$

The F-value statistic for this regression is significant at 1 % level (78.35806; p-value $= 0.0000$) implying that the model is significantly fitted. As indicated by

Table 41.1 Hypotheses statement

H1:	Board size is positively related with shareholder value creation of the acquiring firms in CBMA
H2:	An independent board of directors (IND-BOD) is positively related with shareholder value creation of the acquiring firms in CBMA
H3:	Market-to-book ratio (MTB) is positively associated with shareholder value creation at acquiring firms in CBMA
H4:	Free cash flow (FCF) is positively associated with the shareholder value creation of acquiring firm in CBMA
H5:	Financial leverage (LEV) is positively related with the value creation of acquiring firm in CBMA
H6:	Liquidity (LIQ) is positively related with the shareholder value creation of acquiring firm in CBMA
H7:	Firm age (AGE) is positively related with the shareholder value creation of acquiring firm in CBMA
H8:	Firm size (SIZE) is positively related with the shareholder value creation of acquiring firm in CBMA
H9:	Sales growth (GRO) is positively related with the shareholder value creation of acquiring firm in CBMA
H10:	Gross domestic product (GDP) is positively related with the shareholder value creation of acquiring firm CBMA
H11:	Corporate tax rate (TAX) is negatively related with the shareholder value creation of acquiring firm in CBMA
H12:	Foreign exchange rate (FOREX) is negatively related with the shareholder value creation of acquiring firm in CBMA

Table 41.2 Ordinary least square – the results of basic model parameter estimates and test of significance for event window (−90, +90)

Variable	Coefficient	Prob.
C	5.8686	0.0000***
Board size	0.1445	0.0000***
IND-BOD	−0.0103	0.0934*
MTB	−0.0088	0.3038
FCF	3.54E-08	0.0000***
LEV	−0.0009	0.0011***
LIQ	0.6207	0.0000***
Firm age	0.0896	0.0000***
Firm size	−0.3803	0.0000***
Sales GRO	0.1524	0.0000***
GDP	−0.0132	0.0017***
Corporate tax	−0.1086	0.0000***
FOREX	0.7958	0.0000***
R-squared	0.5900	
F-statistic	78.3580	
Prob (*F*-statistic)	0.0000***	

***1 % level of significant, *10 % level of significant

the R^2, only 59 % of independent variables are able to explain the shareholders value creation.

For this specific event period, with exception to IND-BOD and MTB, all firm-specific determinants have significant relationship with shareholder value creation. Board size has a positive relationship (coefficient = 0.1445) with CAR and is statistically significant at 1 % significant level (Table 41.2). This supports hypothesis 1 that the board size of Malaysian acquiring firms contribute positively to the shareholder value creation. The result is similar to finding of [15–17] that board size affects firm and market performance. Independent board of directors (IND-BOD) that represents agency theory has a negative relationship with the shareholder value creation and is only statistically significant at 10 % significant level. The relationship contradicts the hypothesis statement 2 that hypothesizes a positive relationship between independent board of directors and shareholders' value creation.

Based on financial ratio variables, MTB has insignificant negative relationship with CAR. On the other hand, FCF has a direct relationship with shareholder value creation and is statistically significant at 1 % significant level. This result is aligned with [18] findings. Although LEV is statistically significant, it however has a negative relationship with shareholder value creation. The result leads this study to reject hypothesis 5 that LEV is positively related to the shareholders value creation. LIQ, firm AGE and sales GRO are positively related to shareholder value creation and also statistically significant supporting both hypothesis 6, 7 and 9. The firm SIZE has a negative relationship (coefficient = −0.3803) with shareholder value creation and statistically significant (prob. = 0.0000) at 1 % significant level. Even though this study finds firm SIZE to be statistically significant, the relationship is negatively related which is similar with the finding of [19].

GDP, corporate tax and FOREX are proxies for the macroeconomic factors. Finding from the estimated regression shows inverse relationship between GDP and CAR and is statistically significant at 1 % significant level. There is a need to reject hypothesis 10 since a positive relationship is expected between the two variables. Hypothesis 11 is supported since TAX is revealed to have a statistically significant negative relationship with CAR. The finding is parallel to the finding of [19, 20]. In contrast to the hypothesis statement 12, FOREX has positive relationship with shareholders value creation. However this relationship is statistically significant at 1 % significant level.

B. Findings for Event Window (−60, +60)

Equation 41.7 displays the results of the regression for the period from Day −60 to Day 60.

Table 41.3 Ordinary least square – the results of basic model parameter estimates and test of significance of event window (−60, +60)

Variable	Coefficient	Prob.
C	−0.9758	0.0009***
Board size	0.1901	0.0000***
IND-BOD	−0.1941	0.0000***
MTB	0.1687	0.0000***
FCF	−4.37E-08	0.0000***
LEV	−0.0067	0.0000***
LIQ	0.1617	0.0126**
Firm age	0.1313	0.0000***
Firm size	−2.75E-09	0.0000***
Sales GRO	0.1739	0.0000***
GDP	−0.0351	0.0000***
Corporate tax	−0.1172	0.0000***
FOREX	1.2685	0.0000***
R-squared	0.4362	
F-statistic	490.5758	
Prob (F-statistic)	0.0000***	

***1 % level of significant, **5 % level of significant

$$CAR_{(-60,60)} = -0.9758 + 0.19011 \text{ BOARD SIZE} + -0.1941 \text{I ND. DIRECTOR} \\ + 0.1687 \text{ MTB} + -0.0000000437 \text{ FCF} + -0.0067 \text{ LEV} + 0.1617 \text{ LIQ} \\ + 0.1313 \text{ AGE} + -0.00000000275 \text{ SIZE} + 0.17397 \text{ GRO} + -0.0351 \text{ GDP} \\ + -0.1172 \text{ TAX} + 1.2685 \text{ FOREX} + e_{it}$$

(41.7)

As indicated in Table 41.3, all firm-specific and external determinants are statistically significant in explaining the shareholder value creation. As for firm-specific factors, only board size, MTB, LIQ, firm AGE and sales GRO variables have similar relationships as this study has hypothesized in Table 41.1. CAR has opposite relationship with firm-specific factors like independent board, FCF, LEV and firm SIZE.

GDP has a negative relationship with CAR, indicating that an increase in GDP would cause the shareholder value creation to decline. Foreign-exchange rate also has an inverse relationship with CAR. Only corporate tax has positive relationship with CAR. The results tax findings concur with findings of [21] that tax effects significantly increase bidding firm shareholder wealth or value.

C. Findings for Event Window (−30, +30)

Equation 41.8 and Table 41.4 show the results of the estimated coefficient for the event window period 30 days before and 30 days after CBMA

Table 41.4 Ordinary least square – the results of basic model parameter estimates and test of significance of event window (−30, +30)

Variable	Coefficient	Prob.
C	−0.9450	0.0239**
Board size	0.1910	0.0000***
IND-BOD	−0.2136	0.0000***
MTB	0.2016	0.0000***
FCF	−4.29E-08	0.0007***
LEV	−0.0073	0.0000***
LIQ	0.0588	0.5172
Firm age	0.1360	0.0000***
Firm size	−2.30E-09	0.0000***
Sales GRO	0.1614	0.0000***
GDP	−0.0166	0.0973*
Corporate tax	−0.1719	0.0000***
FOREX	1.6539	0.0000***
R-squared	0.4504	
F-statistic	261.6206	
Prob (*F*-statistic)	0.0000***	

***1 % level of significant, **5 % level of significant and *10 % level of significant

$$
\begin{aligned}
CAR_{(-30,30)} = {}&-0.9450 + 0.1910 \ \text{BOARD SIZE} + -0.2136 \ \text{IND. DIRECTOR} \\
&+ 0.2016 \ \text{MTB} + 0.000000429 \ \text{FCF} + -0.0073 \ \text{LEV} + 0.0588 \ \text{LIQ} \\
&+ 0.1360 \ \text{AGE} + -0.00000000230 \ \text{SIZE} + 0.1614 \ \text{GRO} + -0.0166 \ \text{GDP} \\
&+ -0.171 \ \text{TAX} + 1.6539 \ \text{FOREX} + e_{it}
\end{aligned}
$$

$$(41.8)$$

Interestingly the findings of the relationship between CAR and firm-specific variables and macroeconomic variables are similar to those results for event window period 60 days before and 60 days after CBMA. Again shareholders value creation has statistically significant direct relationship with board size, MTB, LIQ, firm AGE and sales GRO variables, while IND-BOD, FCF, LEV and firm SIZE show opposite relationship. In sum, hypotheses 1, 3, 6, 7, 9, 11 and 12 are accepted.

Macroeconomic variable, that is, GDP and FOREX, has also an inverse effect on CAR. However it is only statistically significant at 10 % level for GDP. Other macroeconomic variable like corporate tax has statistically significant and direct relationship with CAR.

41.6   Conclusion

This study tries to identify the relationship between firm-specific determinants and macroeconomic factors with shareholder value creation as measured by cumulative abnormal return (CAR). Three event window periods (-90, $+90$), (-60, $+60$) and (-30, $+30$) are estimated to determine the relationship. For even period 90 days before and 90 days after CBMA, MTB is found to be insignificant, while IND-BOD, LEV, firm SIZE and GDP are statistically significant but have negative relationship with CAR. Findings for both the event window periods -60 to $+60$ and -30 to $+30$ revealed negative relationship between IND-BOD, FCF, LEV, firm SIZE and GDP. Hence this study failed to reject six hypotheses out of 12 hypotheses being tested. In conclusion most of the firm-specific determinants significantly contribute to the shareholders' value creation in Malaysian acquiring firms cross-border M&A.

In terms of macroeconomic factors, TAX has a positive relationship and is statistically significant to shareholder value creation. This means that external determinants also influence the shareholder value creation. This is supported by the increase in the value and numbers of cross-border mergers and acquisitions in the advanced emerging markets not only Malaysia but all over the world.

For future research, it is recommended that study on this area to incorporate other variables such as financial ratios of target firms, political risk. In addition, to test the robustness of the results, this study could also include other event window periods. Findings from this study can contribute to the body of the existing literature on CBMA particularly on advanced emerging markets for future researchers.

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Chapter 42
Preliminary Investigation on the Determinants of Household Debt Burden

Siti Aminah Mainal, Nor Akila Mohd Kassim, Catherine S.F. Ho, and Jamaliah Mohd Yusof

Abstract The study of household debt burden is important because households are an essential element of each social and economic system. This means that any debt-service problems that they encounter will portray a negative influence on the whole economy in the long run. Further, household debt is currently becoming a very crucial social and economic problem for both highly developed countries and emerging markets (including ASEAN). This paper attempts to conduct a preliminary investigation on the determinants of household debt burden by looking first at the trend of household debt in some advanced economies and emerging ASEAN countries. It will also review some macroeconomic factors inherent in household debt burden, namely, interest rate, inflation rate, housing price index, unemployment rate, and aggregate consumer consumption. Accordingly, the aim of this paper is to produce a conceptual framework and discuss the methodology process involved. It is hoped that the evidences laid out from previous literatures on the importance of solving the household debt burden issue, in some way, have caused the curiosity for further investigation in determining, uncovering, and validating the determinant factors that may affect household debt burden in the selected countries under this study.

Keywords Household debt burden • Housing price index • Unemployment rate • Aggregate consumer consumption

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42.1   Introduction

According to [1], during the past few years, countries around the world have experienced rapid growth in their household debt or household borrowings. It cannot be denied that a growth in household debt is desirable since it is necessary for encouraging economic activities. However, too much household debt may pose substantial risk to the balance sheet of households. Subsequent problems may take place due to high household debt such as severe cash-flow problem, defaults in loan, bankruptcy, and foreclosure, and this will lead further to decline in spending on consumption and eventually to financial instability.

The 2008 global financial crisis which started in the USA is one good example to put forward due to excessive household debt which causes severe worldwide financial instability. US household debt had mounted to an exceptional level in the year leading to the worst global catastrophe. Many of the subprime borrowers faced difficulty in paying off their debts which eventually led to extensive loan defaults that prompted a severe financial crisis in the world's most advanced economy. Moreover, according to [2], excessive household debt contributed to the worst recession in decades. Insights about borrowing and spending behavior can assist in economic recovery forecasts and policy decision making. Further, reducing debt, that is, "deleveraging," has proven to be a much harder slog than to climb up the debt mountain. Many advanced economies suffer the worst balance sheet recession including the household balance sheet.

In addition, [3] stressed that until financial institutions, households, and governments in advanced economies return their balance sheet to sustainable levels of assets and debt, recovery from the worst global economic downturn since the Great Depression of the 1930s will be retarded. Meanwhile, [4] revealed that leverage levels are still very high in some sectors (particularly household sector) of several countries, and this is a global problem, not just a US one. In addition, household debt compared to disposable income increased significantly, which should have raised a red flag long before the crisis hit. In the USA, middle-income households saw the largest increase in debt/income and debt-service payments.

The following is a brief review of the pattern of household debt in selected advanced economies and ASEAN countries.

According to [5], from 1999 to 2008, there was a substantial increase in household debt in the USA. Household debt increased more than 150 % to almost $13 trillion in 9 years. The major contributor to this increase was debt secured by residential real estate. Other consumer debt also surged to almost $3 trillion. Rising stock and house prices as well as the increase in income and population were the main factors that contributed to this increase. However, from the final quarter of 2008–2011, US households have reduced more than half a trillion of their indebtedness due to the government's deleveraging process [6].

With regard to the UK, the expansions in house prices, gross domestic product (GDP) growth, and interest rate result in households taking their time to settle off their debts over several years. Meanwhile for Spain, it is still a long way ahead to

feel comfortable with the household debt-to-disposable income ratio, since home mortgages and other types of credit have showed no signs of falling. Overall, at the McKinsey Global Institute, research shows that since 2008, debt ratios had risen fast in Japan, France, and Spain and only Australia and the USA have indicated a downward trend [6].

With regard to France and Italy, household debt from the period 2000 to 2007 was quite moderate, and even after the financial crisis, the growth of household debt remained modest. Germany, however, is seen to be different from the abovementioned countries where its household debt had been experiencing a negative expansion throughout the period 2000–2011 [7].

Meanwhile, during the past few years, many ASEAN countries have experienced vast growth in household debt/household borrowings. According to [1], countries like Indonesia and the Philippines have very low debt-to-GDP ratio of less than 20 %. Meanwhile, countries like Malaysia, Thailand, and Singapore faced high debt of over 50 % debt-to-GDP ratio.

Therefore, in light of the fast-growing household debt around the world and its detrimental effect, it is therefore crucial to understand the determinants of household debt burden.

42.2 Review of Literature

Issues on household debt burden and its causing factors have been examined by previous literature, namely, [8–10]. Debelle [9] investigated the influence of inflation, taxes, and debt-service constraints on the aggregate household debt levels and discovered that changes in inflation and liquidity constraints contribute to a large increase in the debt-to-income ratio. Meanwhile, [10] examined factors influencing household indebtedness of mortgage and consumer debt, and those factors included interest rates, expected income, demographics, house prices, and financial innovation.

However, there are limitations in the previous studies. Previous studies have used basic descriptive statistics and scatter diagram to describe the relationship between household indebtedness and the determinant factors. Soman and Cheema [8] and Dynan and Kohn [10] failed to take into account macroeconomic factors such as unemployment rate and interest rate in their study of household indebtedness. Meanwhile, [9], in the cross-country study, might have inconsistent measure of household debt and therefore undermined the estimated results.

A. *Household Debt Burden*

The dependent variable is the households' gross debt-to-gross disposable income ratio which measures household debt burden. Gross debt is defined as total financial

liabilities less shares and financial derivatives. Gross disposable household income (GDHI) is the amount of money that individuals (i.e., the household sector) have available for spending or saving. This is money left after expenditure associated with income, e.g., taxes and social contributions, property ownership, and provision for future pension income. It is calculated gross of any deductions for capital consumption [11].

B. Interest Rate

There are many studies that relate interest rates as one of the factors that cause a rise in household debt. Among the studies are by [12] who studied the causes of the rise in US household debt since the early 1970s using a calibrated partial equilibrium overlapping generations model. The result was that shocks to real interest rates explained the rise in US household debt. Meanwhile, [9] advocated that increase in household debt can be attributed to the reduction in interest rates, both in real and nominal terms. Household sectors were more sensitive to movements in interest rates.

Sensitivity increased in countries like Australia, Spain, and the UK, with predominantly variable interest rate on mortgages compared to France, Germany, and the USA with fixed interest rate on mortgages. In the IMF Country Report for Canada, [13] stated that falling interest rates was one of the crucial factors behind the credit surge. Average 5-year mortgage rates fell from above 8 % in 2000 to slightly above 4 % in 2012. This negative relationship of interest rate with household debt is also supported by [14].

C. Inflation Rate

Inflation rate is also one of the determinants that affect household debt. This is supported by [9] who examined the influence of inflation, taxes, and debt-service constraints on aggregate household debt levels and found out that changes in inflation and liquidity constraints can result in changes in debt. He posited that the decline in inflation has two effects on household borrowing. Firstly, the reduction in borrowing costs allows higher number of households to borrow and therefore increase the household debt. Next, with lower inflation, the real value of the debt is not eroded as fast as the past value; hence, when inflation rates fall, the associated decline in nominal borrowing rates allows household to borrow larger amounts for a given limit on debt service.

According to [1], inflation affects household indebtedness similar to house prices. Lower inflation means a reduced cost of borrowing, and this increases the incentives to borrow in order to smooth their desired path of consumption over the life cycle. The negative relationship between inflation and household debt can be

confirmed by [4], who posits that high inflation causes deleveraging by increasing nominal GDP growth, thereby reducing the ratio of debt over GDP. Among the countries that have experienced significant deleveraging as a result of high inflation were Italy (1975–1981), Nigeria (1986–1991), Paraguay from 1983 to 1987, and Portugal from 1983 to 1990.

D. Housing Price Index

Previous studies have found housing price as another determinant which can influence household debt. A study done by [14] indicated that house prices can be measured by housing price index and have positive effect on household debt. Meanwhile, [15] pointed out that major macroeconomic variables affecting household debt include housing prices and interest rates. In Korea, borrowers who own high-priced housing are at higher risk from fluctuation in housing prices. Nakornthab [1] confirmed that house price movements are a significant force of household indebtedness from the study conducted comprising of countries like the Philippines, Singapore, Taiwan, Korea, Malaysia, Thailand, and Indonesia from 2000 to 2008.

E. Unemployment Rate

Another important determinant of household debt is unemployment rate experienced by each country. Previous study by [14] found that unemployment rate has a negative effect on household debt. They added that an increase in unemployment rate leads to a decrease in household debt. Schooley and Worden [2] conducted a study using the public database of the 2007 Federal Reserve Board Survey of Consumer Finances (SCF) on a comprehensive view of the financial behavior of a cross section of US household. They advocate that the possibility of unemployment leads to uncertainty in household income and so affects consumption and saving. With employment and income uncertainty rising during the recession, households save more in order to increase their buffer and hence borrow less.

F. Aggregate Consumer Consumption

Another vital factor that affects household debt burden is aggregate consumer consumption. Yao et al. [16] pointed out that according to life-cycle/permanent income hypothesis, "households should borrow when income is low and pay down debt when their income is high in order to smooth their consumption level over their life cycle." In their study toward the Chinese Americans, it was found that

households focused on consumption and were willing to borrow to smooth their life-cycle consumption. Meanwhile, [17] examined the relationship between consumer durables expenditure and household balance sheet. They advocated that consumer consumptions have a positive relationship with household debt. This means that when household increased their expenditure, their debt increased too.

However, there have been different results by other researchers with regard to aggregate consumer consumption on household debt burden. Johnson [18] found that an increase in the growth of revolving consumer debt reduced consumption growth. Mishkin [19] and McCarthy [20] found that a rise in debt payments led to lower expenditures on durable goods. One reason for these apparently contradictory results might be that debt did not have a strong, direct effect on the growth of consumption, but rather, debt altered the relationship between consumption and income [21]). In their study, [21], who compared the consumption smoothing behavior of households in the 1992–2005 waves of the Consumer Expenditure Survey over the debt-service ratio (DSR), posited that a high DSR alone did not indicate higher sensitivity of consumption to a change in income. They also found that consumption of households with low liquid assets and high debt-service burdens was more sensitive to changes in income than the consumption of households with low liquid assets alone.

In this regard, the present study examines the following hypothesis.

Hypothesis 1

Ha: There is a significant relationship between interest rate, inflation rate, housing price index, unemployment rate, aggregate consumer consumption, and household debt burden (Fig. 42.1).

42.3   Conceptual Framework and Methodology

From the literature review on household debt burden, it was expected that several factors can be considered as determinant factors of household debt burden. This study anticipated interest rate, inflation rate, housing price index, unemployment rate, and aggregate consumer consumption as the independent variables. Therefore, this study specifies a model as follows:

Model 1:

$$HDBt = \alpha + \beta 1\ IRt + \beta 2\ IFt + \beta 3\ HPIt + \beta 4\ URt + \beta 5\ ACCt + \epsilon$$

where HDB is household debt burden, IR is interest rate, IF is inflation rate, HPI is housing price index, UR is unemployment rate, and ACC is the aggregate consumer consumption. β is the slope coefficient, and ϵ is the error term.

This study will employ a number of steps in achieving the estimated model as stated above. First, this study will analyze the descriptive analysis of the data. Among the descriptive statistical measures that will be used are mean, median, and
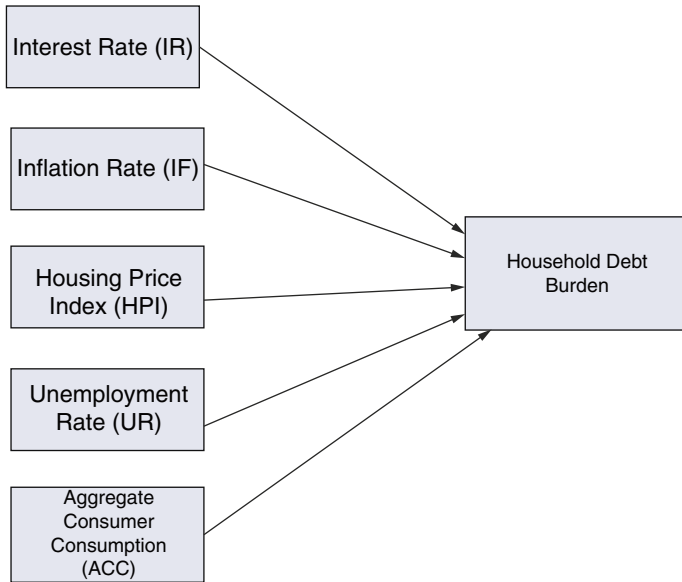
Fig. 42.1   Model of the determinants of household debt burden

standard deviation. In addition, normality tests, in a statistical manner, such as skewness, kurtosis, and Jarque-Bera test statistics will be used to verify whether random variables are normally distributed. Second, econometric issues as found in panel unit-root test and test on multicollinearity will be resolved with appropriate solutions. This study will conduct the unit-root test in order to check on the series of return whether it is stationary or nonstationary. The stationary for a time series implies that the series is well behaved and its stochastic properties are invariant with respect to time. In performing regressions with nonstationary data, it will increase the likelihood of producing spurious results. Hence, it is vital to test for nonstationary when working with time series data before proceeding with estimation. This test is known as unit-root tests. The contemporary method to inspect the stationarity of a series is by employing panel data unit-root tests [22, 23]. The attraction of unit-root test on panel data is that it combines time series with cross-sectional information and thus improves the power of unit-root test.

With regard to multicollinearity, this means that two or more independent variables are connected to each other, and this scenario will lead to data overlapping. This means that one or more variables are redundant. The existence of multicollinearity can be observed from the results where the standard error is likely to be in large value (leading to small t value) and the value of $R2$ is high. The multicollinearity problem can be examined by employing Pearson's correlation that indicates the relation among variables.

Third, once the data is ready, panel data analyses will be conducted including the ordinary least squares (OLS), panel OLS, fixed-effects model, and random-effects model. According to [24], OLS is the most common method used to fit a line to the

data. This approach forms the workhorse of econometric model estimation. OLS can be viewed as equivalent to minimizing the sum of the areas of the squares drawn from the points to the line. There are several types of panel analytic models, for instance, panel OLS, fixed-effects model, and random-effects model. This is to resolve the problems of heteroscedasticity and autocorrelation. In the event that there is neither significant cross-section nor significant temporal effects, data will be pooled and run least squares regression model. In pooling the time series and cross-sectional data, it is assumed that the model's parameters are similar across countries selected. It has constant coefficients for both intercepts and slopes.

The fixed-effects model considers the possibility of intercept to vary, but it still assumed that the slope coefficients are constant across countries selected. There are three types of fixed-effects model with constant in the slope coefficients. The first type of fixed-effects model has constant slope coefficient, but intercepts may vary according to cross sections. The second type of fixed-effects model has constant slope coefficient, but intercepts may vary according to time, while the third type of fixed-effects model has constant slope coefficients, but the intercepts may change over cross sections as well as time [24]. According to [24], an alternative to the fixed-effects model is the random-effects model, which is sometimes known as the error-components model. The random-effects approach proposes different intercept terms for each entity, and again, these intercepts are constant over time, with the relationships between the explanatory and explained variables assumed to be the same both cross-sectionally and temporally. However, the difference is that under the random-effects model, the intercepts for each cross-sectional unit are assumed to arise from a common intercept plus a random variable that varies cross-sectionally but is constant over time.

Finally, diagnostic test which includes test of heteroscedasticity and test of autocorrelation will be performed [24]. The common practice of econometric modeling is to presume that the error term is constant over all times. If such assumption is right, then homoscedasticity may be present. In contrast, if the variance of the error term is not constant, then heteroscedasticity may be present [24]. Subsequently, the estimates of the parameters attained by the approach of least squares are no longer minimum variance unbiased estimator, and over time, the estimates of the dependent variable become less predictable [25]. For autocorrelation, this study will use the Durbin-Watson (DW) test since it is the simplest and most general test for autocorrelation.

Past studies such as by [1] had used pooled OLS regression of the ratio of household debt to GDP against different variables such as log nominal GDP per capita, real housing price index, real lending rate, inflation, and nominal lending rate. The estimation covered five countries, namely, Malaysia, Indonesia, Korea, Thailand, and Taiwan for the period 2003–2008 with a total of 36 observations. Regression results showed that log nominal GDP per capita was positively significant while real lending rate, inflation, and nominal lending rate were significant but negatively related. However, real housing price index was found not significant. Another study by [26] had instead used a cointegrated vector autoregression (VAR) model (for time series data) to explore the determinants of Australian household

debt. The results revealed that interest rate, unemployment rate, and inflation rate were found to have a negative effect on Australian household debt while GDP and house prices were found to be positively related. Meanwhile, in the USA, [12] employed a calibrated partial equilibrium overlapping generations (OLG) model to explain household debt in terms of a consumption-income and housing-finance motivations. They found that the substantial rise of household debt in the 1990s could be explained by real interest rate, income growth expectations, demographic changes, and the removal of credit constraint.

42.4 Conclusions

Previous studies found that household debt burden is an issue that needs to be addressed seriously by each country affected. The evidences laid out from previous literatures on the importance of solving the household debt burden issue, in some way, have caused the curiosity for further investigation in determining, uncovering, and validating the determinant factors that may affect household debt burden in the selected countries under this study. This paper attempts to develop a conceptual framework with regard to the determinants of household debt burden. This study will give a huge impact to the government policy makers, relevant authorities (credit bureaus in other countries or AKPK in Malaysia), and financial planners in understanding household debt burden and prevent extreme level of household indebtedness in the respective countries.

However, besides some macroeconomic variables, there are also other factors that give huge impact toward household debt burden. Factors such as life-cycle variables also affect household debt burden. Life-cycle variables have been extensively studied by past researchers with regard to indebtedness. Therefore, it is relevant to include them in future studies since the results will differ from previous research since data collected will be from different places and countries. Currently, this study will only focus on some macroeconomic variables that may affect household debt burden specifically in the selected advanced economies and emerging ASEAN countries under study.

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Chapter 43
An Examination of FDI in China, Singapore, and Malaysia

Anita Hasli, Catherine S.F. Ho, and Nurhani Aba Ibrahim

Abstract This study analyzes the influence of macroeconomic factors and country-specific factors on foreign direct investment of three countries: China, Singapore, and Malaysia. The macroeconomic factors included are the inflation rate, interest rate, gross domestic product, trade openness, debt, exchange rate, domestic money, and unemployment. The country-specific factors are labor quality, infrastructure, financial resources, stock market performance, environment, natural resources, and political risk. The study applies unit root tests and regression analysis to ascertain the significance of the macroeconomic and country-specific factors on foreign direct investment of each country. All the macroeconomic factors and country-specific factors are transformed to ensure that there will be no unit root problem. The period of study for each country is from 1980 to 2011. The regression analysis is employed based on the ordinary least square (OLS) method. The study found that unemployment, infrastructure, financial resources, and the stock market performance influence the inflow of FDI.

Keywords Foreign direct investment • Macroeconomic factors • Country-specific factors

43.1 Introduction

Foreign direct investment (FDI) is a current and relevant issue in the global arena of highly volatile capital flows and investments. The fragility of the financial systems of developing and emerging nations is clearly noted from the adverse effects of the financial crisis in Asia, Russia, and Latin America [1]. It is known that foreign direct investment is one of the most important trends toward globalization [2]. Importance and benefits of FDI to the host country include increase in trade, business cycle synchronization, employment, technology diffusion and transfers, knowledge transfers, quality managerial and labor skills, more equality, and social

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welfare. Also, it promotes innovation and financial development which are important elements for developing countries to possess. And therefore, FDI is a catalyst to the development of local industries in terms of efficiency, rise in productivity, and competition leading to an increase in economic growth.

FDI is important to developing countries because, generally, FDI increases countries' income and promotes risk sharing across countries leading to economic growth. Specifically, not only does FDI promote interindustry linkages, it is also beneficial for companies' survival and promotes competition among domestic companies. FDI creates jobs, increases wages, increases skills and knowledge, promotes stability in output consumption, technology spillovers, and promotes diversification of production [3–6]. Inevitably, FDI is deemed as a driver of future global growth as its influence on a country's growth is undoubtedly significant.

By the early 2000, the world witnessed the decline of FDI in developed regions and the rise of FDI in developing regions. International investment agreements continued to flourish in accordance with the importance of FDI. By mid-2000, there was an emergence of a considerable volume of outward FDI from some countries in developing regions. The intensity of the flow of FDI concentrated in the Asia region, and this swing was accompanied by the shift of FDI flow from natural resources and manufacturing sectors to the services sector.

The Fig. 43.1 shows that after the global financial crisis and the European debt crisis, FDI continued to grow in developing countries implying resilience of companies in managing debt crisis and their motivation to sustain survival of the companies. Also, it implies that developing countries are encouraging the presence of FDI as there is a need for foreign direct investment to escalate economic growth.

The Fig. 43.2 shows the trend of FDI flow in China, Singapore, and Malaysia for the period 1980 until 2011 which indicates a tremendous increase in FDI flow in China, while the flow of FDI in Singapore has been moderate. The flow of FDI in Malaysia has been steadily low.

The Fig. 43.3 shows the trend of FDI flow of China, Singapore, and Malaysia as a percentage of inflow of FDI in Asia. The flow of FDI into these three countries has been steadily maintained since 1990.

43.2   Literature Review

An array of macroeconomic and country-specific factors could influence the inflow of foreign direct investment in developing countries. In the past years, empirical studies had shown mixed results of the influence of macroeconomic factors and country-specific factors on foreign direct investment.

A study by [7] conducted an empirical analysis on the determinants of FDI inflow of countries in Southeast Europe which employed a set of panel data for the period 1995–2006. The dependent variable was the flow of foreign direct investment and the explanatory variables were market size (measured by real GDP),

Fig. 43.1 Trend of inward FDI in developing countries as a percentage of world's inward FDI (1990–2011) (Source: Adapted from the United Nation)
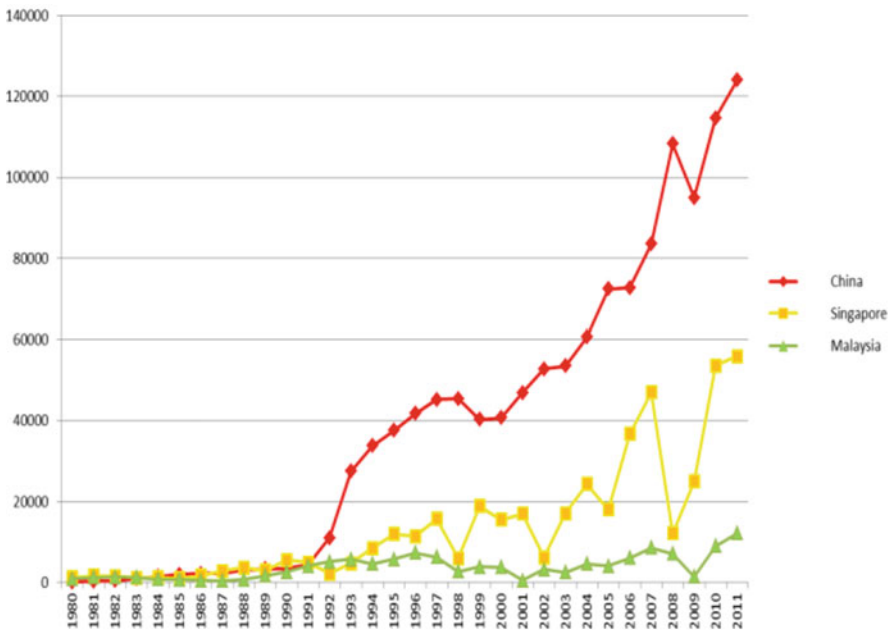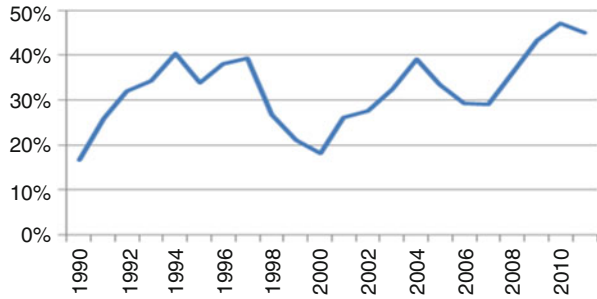
Fig. 43.2 Trend of inward FDI in China, Singapore, and Malaysia (1980–2011) (Source: Adapted from the United Nation)

GDP growth rate, rate of inflation, openness, adult literacy rate, political stability, labor freedom, fiscal freedom, freedom from corruption, business freedom, trade freedom, government size, monetary freedom, investment freedom, financial freedom, and property rights. A correlation analysis was used to determine the association between variables to check for multicolinearity. The estimation method employed to estimate the regression model were the feasible generalized least squares (FGLS). The estimators considered were the random effects, fixed effects, and random effects maximum likelihood (MLE). The study found that
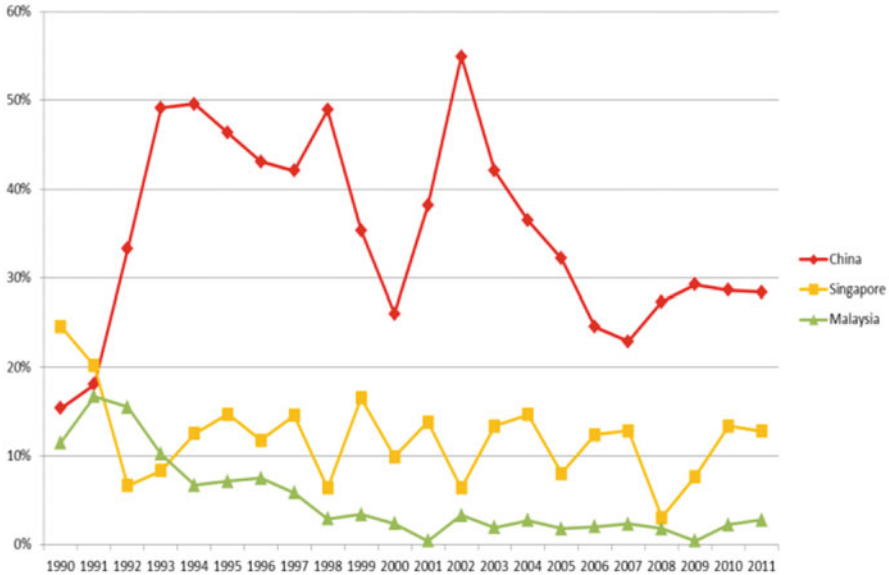
Fig. 43.3 Trend of FDI flow of China, Singapore, and Malaysia as a percentage of inward FDI in Asia (1990–2011) (Source: Adapted from the United Nation)

market size had a strong positive significant effect on FDI inflows. The degree of openness had a positive significant effect on FDI inflows in most of the models with the exception of the fixed effect model. Political stability had a positive significant effect on foreign direct investment inflow. The fiscal freedom index had a strong negative effect on foreign direct investment inflow. Business freedom had a positive significant effect on foreign direct investment inflow. Literacy rate had a mixed result on its effect on foreign direct investment inflow. Property rights had a weak negatively significant effect on foreign direct investment. Government size index had a weak positive significant effect on FDI in two of the six models. Growth rate of GDP, rate of inflation, and freedom from corruption had no effect on foreign direct investment inflow.

In one recent study, [8] used a panel data covering 2005–2007 for 68 developing countries in Asia, Africa, and Latin America in which 31 are low-income and 37 are lower-middle-income countries. The independent variables were gross domestic product, trade, foreign aid inflows, industrial value added measured as a percentage of GDP, growth rate of industrial value added to GDP, total labor cost, Internet users per 100 people, the number of days to start a business, time required to prepare and pay taxes, and inflation. The dependent variable was the flow of foreign direct investment. A correlation and regression analysis was employed. They found that countries that received the highest foreign direct investments are the middle-income countries and that low-income countries received the lowest foreign direct investment. This is due to the fact that international trade had allowed a more

business-friendly environment to the middle-income countries that had larger domestic markets which were highly linked with the global market. The study found that significant positive factors to attract foreign direct investment were GDP size and growth rate, linkages with the global market through international trade, relationships with major donor countries in the form of foreign aid, and a business-friendly environment measured by the days required to start a business. The study concluded that by having more outward-oriented trade policies and providing a more business-friendly environment to foreign investors, small developing countries in the world can attract a large amount of FDI.

Another study was by [9] who conducted a study on 62 developing and 21 developed countries from 1984 to 2000 by using a macroeconomic annual panel data set. A regression analysis based on fixed effects and ordinary least square was employed. The dependent variable was the net FDI inflows (FDI inflows minus repatriated investments). The independent variables were corruption, financial risk rating, political risk rating, GDP growth rate, GDP per capita, GDP growth volatility, interest rate controls, lagged value of FDI net inflows, gross fixed capital formation, inflation, economic stability, life expectancy, literacy rate, government consumption, ratio of deposit money bank assets to GDP, private credit by deposit money banks and other institutions to GDP, and exchange rate volatility. The study found that, after controlling for other macroeconomic and institutional factors, capital account openness measure was positively but moderately associated with the amount of foreign direct investment inflows. But when interactions with institutional quality and enforcement were controlled, there was no association between capital account openness and foreign direct investment.

On a smaller scale, [10] made a study on five fast developing countries, namely, Brazil, Russia, India, China, and South Africa (BRICS countries) as a whole for the period 1975–2007. They employed common constant (also known as pooled ordinary least square), fixed effects, and random effects models. The dependent variable was the FDI inflow. The independent variables were the GDP (market size), industrial production index, workers' remittances and compensation of employees received, infrastructure index, trade openness, real effective exchange rate, and the gross capital formation as a percentage of GDP. In this study it was found that inflation rate, industrial production, and trade openness were likely determinants of foreign direct inflows to BRICS. Critical factors attracting foreign direct investments were inflation and industrial production. Another important determinant to increase foreign direct investment was to maintain the stability of the host country's currency. Also, it was found that wage rate was negatively significant to foreign direct investment. The study concluded that developing nations had not much choice but to get themselves involved in the path of economic reform and liberalization activities. The study suggested that future research should include variables such as relative market share, relative growth of the economy, relative corporate rate, risk factors, and corporate governance.

Outward foreign direct investment too had a significant long-run relationship with inward foreign direct investment according to [11]. This finding was found in

this particular study of a panel data of 35 economies from 1981 to 2004 that employed panel co-integration and panel causality. The data was split into closed economies (open recently) and open economies (historically open). The sample was further split into developed and developing economies and found that bidirectional causality seems to be present. When an openness criterion (in three versions) was adopted, the causality tests remained robust. Outward foreign direct investment became an attractor to inward foreign direct investment and inevitably will lead to higher growth levels for the economy. The study concluded that for countries especially in less developed economies, the governments and policy makers should promote and strengthen outward foreign direct investments through economic policy packages such as tax deductions and lower borrowing rates for corporations undertaking outward foreign direct investment project. He suggested investigating other variables such as human capital, economic, and financial development of the host country that could affect or determine outward and inward FDI.

The existing literature suggests to include risk factors, economic, and financial development that could influence foreign direct investment. Therefore, these variables are included in this study as an extension to the existing studies.

43.3 Data and Method

Historical time series data of China, Singapore, and Malaysia from 1980 to 2011 are collected from the International Financial Statistics (IFS) and Balance of Payment (BOP) of the International Monetary Fund (IMF), the World Bank Open Data database, the United Nations Conference on Trade and Development (UNCTAD) database, and the Global Market Information Database (GMID). The macroeconomic data included are inflation rate, interest rate, gross domestic product, trade openness, external debt, exchange rate, domestic money, and unemployment. The country-specific factors are labor quality, infrastructure, financial resources, stock market performance, environment, natural resources, and political risk. This study applied both the ADF unit root test and the KPSS stationary test to check for the robustness of the results. All macroeconomic and country-specific time series data are transformed to ensure that there is no unit root problem and that all data used in the tests are stationary. This procedure is essential to ensure that the regressions produced are not misspecified or spurious in nature. A regression analysis is employed based on the ordinary least square (OLS) method. The list of variables and their proxies are listed in Table 43.1.

There are two models being examined in this study which are the model on macroeconomic factors influence on FDI as in Eq. 1 (E1) and a second model on country-specific factors influence on FDI as in Eq. 2 (E2).

Table 43.1 Macroeconomic and country-specific variables

Variables	Measurement
Foreign direct investment (FDI)	Changes in FDI
Inflation (INF)	Inflation rate (changes in consumer price index)
Interest (INT)	Changes in interest rate
Gross domestic product (GDP)	Changes in GDP
Trade openness (TO)	Changes in trade openness
Debt(D)	Changes in external debt
Exchange rate (ER)	Changes in exchange rate
Domestic money (DM)	Changes in domestic money
Unemployment (UE)	Changes in unemployment
Quality of labor (QL)	Changes in quality of labor
Infrastructure (I)	Changes in infrastructure
Financial resources (FR)	Changes in financial resources
Stock market performance (SMP)	Changes in stock market performance
Political risk (PR)	Changes in political risk
Environment (E)	Changes in the environment
Natural resources (NR)	Changes in natural resources

Model 1: Macroeconomic Factors

$$\text{FDI}_t = \beta_0 + \beta_1 \text{INF}_t + \beta_2 \text{INT}_{2t} + \beta_3 \text{GDP}_{3t} + \beta_4 \text{TO}_{4t} + \beta_5 \text{D}_{5t} + \beta_6 \text{ER}_{6t} \\ + \beta_7 \text{DM}_{7t} + \beta_8 \text{DM}_{8t} + \mu_t \tag{E1}$$

Model 2: Country-Specific Factors

$$\text{FDI}_t = \beta_0 + \beta_1 \text{QL}_t + \beta_2 \text{I}_{2t} + \beta_3 \text{FR}_{3t} + \beta_4 \text{SMP}_{4t} + \beta_5 \text{PR}_{5t} + \beta_6 \text{E}_{6t} \\ + \beta_7 \text{NR}_{7t} + \mu_t \tag{E2}$$

where $t = 1980,....,2011$ represents the time period
$\mu_t =$ standard error term

The formulation of the models is based on the location theory (Weber 1929); the internalization theory (Coase 1937; Buckley and Casson 1976); the Mundell (1957) framework; the product life cycle theory (Vernon 1966); the industrial organization theory developed by Kindleberger (1968), Caves (1971), Hymer (1976), and Dunning (1977, 1979, 1988); the trade-oriented direct investment theory by Kojima (1978); the new trade theory by Krugman (1979); and the market size hypothesis. In addition, the models specification was also based on past empirical studies on the determinants of FDI inflow.

43.4 Findings

The unit root test results are presented below:

A. *Unit Root Test (Tables 43.2 and 43.3)*

B. *Regression*

A regression analysis was employed to determine the factors influencing inflow of FDI in China, Malaysia, and Singapore. The results of the regression analysis are shown in the following Tables 43.4, 43.5, and 43.6:

In model 1, it was found that unemployment has a positive significance to the inflow of FDI in China. In model 2, infrastructure and financial resources have a positive significance to the inflow of FDI in China. However, stock market performance has a negative significance on FDI in China. By using stepwise regression

Table 43.2 ADF test results

Country	China	Singapore	Malaysia
Factors	ADF	ADF	ADF
FDI	$-9.877^a(0)$	$-5.180^a(2)$	$-6.692^a(0)$
INF	$-3.300^b(1)$	$-7.959^a(0)$	$-7.180^a(0)$
INT	$-5.015^a(0)$	$-4.597^a(0)$	$-4.865^a(0)$
GDP	$-6.196^a(0)$	$-4.213^a(0)$	$-5.082^a(0)$
TO	$-4.116^a(0)$	$-5.718^a(0)$	$-4.086^a(0)$
D	$-13.642^a(0)$	$-4.685^a(0)$	$-4.411^a(0)$
ER	$4.795^a(0)$	$-4.986^a(0)$	$-5.844^a(0)$
DM	$-3.985^a(0)$	$-4.161^a(0)$	$-5.026^a(1)$
UE	$-5.120^a(0)$	$-4.722^a(0)$	$-3.737^a(0)$
QL	$-3.765^a(0)$	$-5.656^a(0)$	$-5.251^a(0)$
I	$-3.105^b(0)$	$-3.024^b(0)$	$-3.895^a(0)$
FR	$-3.965^a(0)$	$-5.906^a(0)$	$-4.694^a(1)$
SMP	$-4.209^a(0)$	$-6.929^a(0)$	$-6.678^a(0)$
PR	$-7.321^a(1)$	$-3.059^b(0)$	$-4.680^a(0)$
E	$-3.975^a(0)$	$-4.611^a(0)$	$-5.941^a(0)$
NR	$-3.353^b(1)$	$-6.766^a(0)$	$-3.257^c(0)$

Note: The null hypothesis for augmented Dickey-Fuller (ADF) test is the presence of a unit root. The ADF test includes a trend and intercept. The maximum lag, indicated in the parenthesis, is based on the Schwarz info criterion (SIC)

[a, b,] and [c] denotes significance at 1 %, 5 %, and 10 %, respectively

Table 43.3 KPSS test results

Country	China	Singapore	Malaysia
Factors	KPSS	KPSS	KPSS
FDI	0.059(2)	0.319(11)	0.256(3)
INF	0.224(3)	0.148(1)	0.296(16)
INT	0.229(3)	0.203(6)	0.195(8)
GDP	0.215(1)	0.198(1)	0.081(3)
TO	0.338(7)	0.158(10)	0.223(1)
D	0.116(2)	0.429^c(2)	0.207(1)
ER	0.155^b(1)	0.098(1)	0.140(4)
DM	0.680^b(3)	0.223(1)	0.106(4)
UE	0.354^b(8)	0.095(5)	0.135(2)
QL	0.285(3)	0.259(3)	0.133(4)
I	0.113(0)	0.128(1)	0.107(0)
FR	0.245(1)	0.075(2)	0.243(0)
SMP	0.104(4)	0.299(15)	0.064(1)
PR	0.269(10)	0.110(1)	0.139(0)
E	0.225(3)	0.091(0)	0.168(1)
NR	0.182(2)	0.063(3)	0.118(3)

Note: The null hypothesis for Kwiatkowski-Phillips-Schmidt-Shin (KPSS) is stationarity. It is included as a complementary test to the ADF test. The KPSS test includes trend and intercept. The spectral estimation method employed is the Bartlett kernel with Newey-West Bandwidth (as indicated in the parenthesis)
[a, b,] and [c] denotes significance at 1 %, 5 %, and 10 %, respectively

Table 43.4 Regression results for China

Factors	Model 1		Factors	Model 2	
	Coeff	SE		Coeff	SE
INF	0.0007	0.0194	QL	1.0089	1.1665
INT	−0.2001	0.4768	I	2.3867^b	0.9052
GDP	0.0477	2.1185	FR	19.5204^b	8.8518
TO	0.7223	0.7859	SMP	-19.0321^b	8.6199
D	0.0265	0.2787	PR	−0.1837	0.5155
ER	−0.0545	0.6224	E	1.0693	0.7631
DM	−0.8418	1.4770	NR	−1.1254	0.7903
UE	3.6219^c	1.8316			
R^2	0.5177		R^2	0.8293	
R^2 adj	0.2765		R^2 adj	0.7297	
F test	0.0921		F test	0.0008	

Coeff coefficient, *SE* standard error, *adj* adjusted
[a, b,] and [c] denotes significance at 1 %, 5 %, and 10 %, respectively

Table 43.5 Regression results for Singapore

	Model 1	
Factor	Coefficient	SE
UE	−0.6671[c]	0.3789
R^2	0.0997	
R^2 adjusted	0.0675	
F test	0.0893	

SE standard error

[a, b,] and [c] denotes significance at 1 %, 5 %, and 10 %, respectively

Table 43.6 Regression results for Malaysia

	Model 1	
Factor	Coefficient	SE
UE	−4.2563[c]	1.8893
R^2	0.1634	
R^2 adjusted	0.0990	
F test	0.0984	

SE standard error

[a, b,] and [c] denotes significance at 1 %, 5 %, and 10 %, respectively

for model 1, it was found that unemployment has a negative significance on FDI in Singapore. Also, by using stepwise regression for model 1, unemployment has a negative significance on FDI in Malaysia. There is no significance for the influence of country-specific factors on FDI in Singapore and Malaysia.

43.5 Conclusion

The relationship between macroeconomic factors and country-specific factors influence on the inflow of FDI into host countries is an important issue for policy makers of countries that need foreign investment. Unemployment seems to attract FDI in China while unemployment deters FDI in Singapore and Malaysia. Country-specific factors seem to be unimportant factors for foreign investors to consider in making investment decisions in Singapore and Malaysia.

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Chapter 44
Developing Primary Market Spread and Measuring Financial Performance of Staff Housing Government Loans

Mohammed Hariri Bakri, Rosalan Ali, and Shafinar Ismail

Abstract This research aims to examine the determinants of primary market spread and measure financial performance of Cagamas as its case study. Ordinary least square method and regression analysis are applied for the study period of 2004–2012. The result shows that three determinants influence or contribute to the primary market spread that are statistically significant for Cagamas, and its financial performance shows that it is resilient during 2007–2008 US subprime crisis. In fact, Cagamas shows rising profits and dividends in the period of study. As such, this study testifies the success of Cagamas as an intermediary between long-term investors and lenders in the Malaysian mortgage market.

Keywords Market spread • Determinants • Financial performance • Regression analysis

44.1 Introduction

Asset-backed securities (ABS) were introduced by the US government for housing loan funding program back in the 1970s and followed by other securities such as credit card and mortgage. It has become one of the financing tools after 1980, and it is widely spread all over the world. In Malaysia, the government sets up Cagamas Bhd, a mortgage financing body that formed based on Fannie Mae and Freddie Mac on a US model. This national mortgage corporation was formed backed in 1986. Cagamas acts as an originator and its 100 % subsidiary, Cagamas MBS, as a special purpose vehicle (SPV), as an intermediary between long-term investors and

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mortgage lenders whereby it issues financial instrument to capital market players. Cagamas is the only residential mortgage-backed securities (RMBS) for government staff housing loans.

The measurement of financial performance of staff housing government loans will be extracted from Cagamas Financial Annual Report. This study focuses on Malaysia as one of the leading mortgage markets in Asia. In 2001, the Securities Commission (SC) released its *Guidelines on the Offering of ABS* that had paved the way for a CBO issuance by Prisma Assets Berhad, backed by a pool of Ringgit-denominated bonds. Another CBO transaction backed by corporate bonds and a CLO backed by rehabilitating corporate loans followed suit the same year. Till December 2009, an estimated 74 structured transactions have been approved under the SC's guidelines on private debt securities, ABS, and other structured products, encompassing an array of asset classes. Malaysia also had grown its sukuk from US $1.5bil (RM4.8bil) of the global outstanding amount in 2001 to over US$148bil (RM473.7bil) in June this year. This accounted for 60.4 % of the outstanding global sukuk [1]. The objective of this study is to examine the determinants of primary market spread and measure financial performance of Cagamas which represent residential mortgage-backed securities (RMBS) in Malaysia.

44.2   Statement of Problems

Since 1970s, there are many extensive literature factors that impact the pricing of corporate bond. In contrast, there is little empirical evidence on the factors that impact the price of residential mortgage-backed securities (RMBS); in most developed countries including Malaysia, a major sector of the bond market has been published [2]. In the UK, RMBS is the largest securitization sector and article of empirical evidence on the factors that impact new issue of pricing in the UK.

RMBS has been published. In Malaysia Cagamas is the key player for residential and commercial mortgage-backed securities (CMBS), but not much research has been written about determinant of primary market spread. Spread is the premium or yield that investors demand above a reference rate. In predicting CMBS loan performance [3] shall include additional information about the loan originators such as type of firm and the extent to which originators retain an equity stake in target CMBS.

Therefore, this study is to fill in the research gap by exploring the spread determinants with reference to Cagamas as an intermediary between long-term investors and lenders in the Malaysian mortgage market and measure the performance of Cagamas during subprime mortgage crisis.

44.3 Literature Review

There are inconclusive findings on sample with less variation of types of originators and nature of underlying assets in other markets in comparison with Euro-markets. The question whether these other markets are less advanced than Euro-markets remains to be testified. It has been demonstrated that the determinants of primary market spreads are relevant for different financial market participants. For instance, previous researchers [4] found out that default and recovery risk characteristics represent the most important group in explaining loan spread variability. Within this group, the credit-rating dummies are the most important variables to determine loan spread. Meanwhile, the finding from the research suggests that an investor must not rely only on certain factor such as credit rating but strongly suggest that investors do not ignore other credit factors beyond the assigned credit rating [5]. Investors appear to not rely exclusively on these ratings although credit ratings play a major role in determining spreads because there are so many other factors such as enhancement, nature of asset, loan to value, number of trenches, and time of issue.

A. *Profile of Cagamas as a Case Study*

Cagamas Berhad was incorporated as a company in Malaysia in 1986 with a paid-up capital of RM150 million. The largest single shareholder is Bank Negara Malaysia, a Malaysian central bank, while the other 80 % are jointly owned by four largest local banks, namely, CIMB Bank (16.5 %), Maybank (14.2 %), RHB Bank (8.6 %), and Ambank (8.1 %). Cagamas by a nature of business is a sole national mortgage agency in Malaysia and therefore operates as a mortgage corporation and house securitization for promoting the secondary mortgage market.

To meet this government aspiration, Cagamas was mandated by the Malaysian government to acquire its staff housing loans in 2004. As such, Cagamas incorporated its wholly owned subsidiary, Cagamas MBS (CMBS), as a limited-purpose entity, which in securitization is referred to as an issuer or better known as SPV. For funding domestic housing loans, CMBS has issued RM1.55 billion nominal value of RMBS on 20 October 2004 which marked the first transaction backed by a pool of the government's staff conventional home financing in the world. Following this huge success, CMBS issued RM2.050 billion nominal value Islamic RMBS on 8 August 2005 that marked the first world's rated issuance of Islamic securities backed by a pool the government's staff Islamic home financing.

Likewise, the global acceptance of the first Islamic securities by Muslim investors motivated CMBS to issue another RM2.555 billion nominal value Islamic

RMBS on 28th May 2007, and hence, these three phenomenal issues represent the scope of data collection of this study. As for Cagamas, its role is to be an intermediary between primary lenders and investors of long-term funds. Its function is very much similar to those of unit trust company but differs as Cagamas will pool debts or mortgages that it securitized for issuance of the unsecured but highly rated debt securities. Interestingly, Cagamas' debt securities are seen to be assigned the highest ratings by the Rating Agency Malaysia and Malaysian Rating Corporation, the only two local rating agencies in Malaysia that denote its strong credit quality of property market, and hence, researchers are motivated to study its financial performance during the subprime crisis rooted in the USA in 2007 and its spread all over financial centers, including Kuala Lumpur, till 2009.

44.4   Research Methodology

Empirical pricing studies include [6–11] the loan-pricing tests that we perform which are most similar to those presented in Vink (2009), both in the actual model estimated and in the average size of loans under examination with additional new variable liquidity and leverage. We estimate the determinants of loan pricing using the model described in Eq. 44.1.

In order to allow for a comparison of the empirical results, the proxies we used to test which factors that affect primary market spread are based on theory. We shall provide a brief explanation for each variable below. In line with previous research in this area, we estimate the determinants of the primary market spread with the help of using the methodology proposed by [12]. We employ standard OLS regression estimation techniques and adjust for heteroskedasticity. The model estimated is

$$Y_{it} = \beta_0 + \beta_1 x_{it} + \varepsilon_{it} \tag{44.1}$$

In the event that there is neither significant cross-section nor significant temporal effects, we could pool all the data and run least squares regression model. In pooling the time series and cross-sectional data, it assumed that the model's parameters are similar across primary market spread and are stable over time. It has constant coefficients for both intercepts and slopes.

In order to estimate the models that have been developed in Eq. 44.1, this study used the pooled OLS. The pooled OLS adopts the principle of minimizing sum of residuals squares. Each of the residuals is given equal weight although some of the residuals are much nearer to the sample regression function. In other words, all residuals received the same importance (unweighted) regardless of how closely or how widely spread the individual observations from the sample in the regression

function. This study focuses on how spread responds to the various variables specifically on Cagamas as a case study. During financial crisis Cagamas still makes handsome profit compared to other residential mortgage-backed security market especially in the USA which is having problem with subprime mortgage. The spread (primary market spread) represents the price for the risk taken on by the lenders on the basis of information at the time of issue. In our sample, the spread is defined as the difference between the margins yielded by the security at the issue above a corresponding benchmark.

The benchmark is presented in basis points. According to [13], these measurements of the spread for floating- and fixed-rate issues have become standard in the loan-pricing literature. Only various adjustments and refinements are applied in different studies in order to capture the comparability of pricing variables across floating- and fixed-rate issues in a better fashion.

Daily spread basis point for the primary market spread is obtained from data stream. The sample of data of transactions of primary market spread is gathered throughout 2004–2012. This research is also using hypothesis testing to test relationship between the dependent variable and independent variables. The dependent variable is SPREAD. SPREAD represents the price for the risk. Vink [14] used SPREAD to test the determinants of cross-sectional variation with default and recovery risk characteristics, marketability of the loan, and systematic characteristics of the loan. The independent variables are loan to value, maturity, loan size, transaction size, number of tranches, number of lead managers, liquidity, leverage, and year of issue, and Table 44.1 shows the hypotheses for this study.

Lastly, a cross-sectional regression analysis is applied to show the relationship between dependent and independent variables at one period or point in time. The determinants of a primary market spread are examined through cross-sectional regression analysis.

Table 44.1 Hypothesis

H1:	Loan to value is negatively related with primary market SPREAD
H2:	Maturity is positively related with primary market SPREAD
H2:	Maturity is positively related with primary market SPREAD
H4:	Transaction size is negatively related with primary market SPREAD
H5:	Number of lead manager is positively related with primary market SPREAD
H6:	Liquidity is negatively related with primary market SPREAD
H7:	Leverage is positively related with primary market SPREAD
H8:	Year of issue is positively related with primary market SPREAD

44.5   Result and Discussion

A. *Findings for Determinant of Primary Market Spread*

Table 44.2 provides the result from the sample data by using the econometric views (STATA) statistical package by applying it based on Cagamas securitization in Malaysia. The cross-sectional regression model is spelt out as follows:

$$
\begin{aligned}
\text{SPREAD} = {} & -60.9348 + 15.0380 \text{ LTV} + -1.41056 \text{ MAT} \\
& + -14.2549 \text{ LOAN\_SIZE} + 18.3545 \text{ TRX SIZE} + -5.7374 \text{ LEAD\_MAN} \\
& + -0.3086 \text{ LIQUID} + -1.8099 \text{ LVG} + -1.2534 \text{ YR\_ISSUE} + e_{it}
\end{aligned}
$$

$$(44.2)$$

The results show that the model as a whole performs well in terms of the joint significance of variables; F value is 2.46 (prob. $> F = 0.0341$). In other words, the model is significantly fitted, and this research has value to proceed. On the other hand, the moderate adjusted R^2 (45 %) suggests that the dependent variable is explained by factors other than independent variables. At the level of the individual variable, loan to value has a positive relationship (coefficient $= 15.0380$) with SPREAD whereby an increase in the number of loan to value would increase SPREAD and be statistically significant (prob. $= 0.0089$) at 1 % significant level.

This rejects hypothesis 1 that the loan to value is negatively related with primary market spread and positively at any level. Another variable is maturity which has a negative relationship (coefficient $= -1.41056$) with the primary market spread and statistically not significant (prob. $= 0.674$) at any significant level. This result rejects hypothesis 2 that maturity is positively related to the primary market spread.

Based on other independent variables, LOAN SIZE has a negative relationship (coefficient $= -14.2549$) with primary market spread whereby an increase in the

Table 44.2 Ordinary least square – the result of basic model parameter estimate and test of significance for determining primary market spread

Variable	Coefficient	Prob.
C	−60.9348	0.292
LTV	15.0380	0.089*
MAT	−1.41056	0.674
LOAN_SIZE	−14.2549	0.105
TRX_SIZE	18.3545	0.042**
LEAD_MAN	−5.7374	0.044***
LIQUID	−0.3086	0.323
LVG	−1.8099	0.376
YR_ISSUE	−1.2534	0.320
R squared	0.4505	
F statistic	2.46	
Prob (*F* statistic)	0.0341	

***,**, and * indicate significant at 0.01, 0.05, and 0.10 level respectively

number of LOAN SIZE would decrease SPREAD and is statistically not significant (prob. $t = 0.105$) at any level. This supports hypothesis 3 that the LOAN SIZE is negatively related to the determined primary market spread. From the result, TRX SIZE has a positive relationship (coefficient $= 18.3545$) with prime market spread which is statistically significant (prob. $= 0.042$) at 1 % significant level. This result rejects hypothesis 4 that TRX SIZE is negatively related to primary market spread which is aligned with [15] findings. LEAD_MAN has a negative relationship (coefficient $= -5.7374$) with primary market spread and is statistically significant (prob. $= 0.044$) at any significant level.

This result rejects hypothesis 5 that LEAD_MAN is positively related to the primary market spread. The LIQUID has a negative relationship (coefficient -0.3086) with the shareholder value creation and is statistically not significant (prob. $= 0.323$) at any significant level.

This result supports hypothesis 6 that LIQUID is positively related to the primary market spread. The firm LEVERAGE has a negative relationship (coefficient $= -1.8099$) with primary market spread and is statistically not significant (prob. $= 0.376$) at any significant level which is similar with the finding of [16].

This result rejects hypothesis 7 that the firm LEVERAGE is positively related to the primary market spread. The last determinant is YR_ISSUE. The YR_ISSUE has a negative relationship (coefficient $= -1.2534$) with primary market spread and is statistically not significant (prob. $= 0.320$) at any significant level. This result rejects hypothesis 8 that YR_ISSUE is positively related to the shareholders' value creation.

From Table 44.3, despite its revenues from interest, income kept on falling slightly 17 %, but the earning before tax and zakat is a steady income which is RM552 million, considered stable since 2008. In fact, at the peak of the subprime crisis in 2008–2009, it managed to whether its impacts with increasing net income of RM663 million in 2009 from RM621 million in 2008, unexpected steady rise of 7 %. Interestingly, its net profit recorded with only a negligible drop of 1 % during global acute financial uncertainties of 2008–2009 periods. Reflecting its strong net profits from 2008 to 2012, its earnings per share also record good earning of RM2.75 per share in 2012.

As a sole mortgage agency in Malaysia, Cagamas has very heavy debt obligations with an average of 92 % of its debt ratio for 2008, but it shows improvement to 87 % in 2012. Despite heavy interest regular payments, it still has steady payment

Table 44.3 Revenue and profits 2008–2012

Revenues and profits	2008	2009	2010	2011	2012
Gross revenue	1,214.3	1,154.3	1,119.4	1,047.1	1,005.2
Net revenue	620.9	662.8	647.7	628.4	579.4
Profit before taxation and zakat	564.3	559.2	610.5	591.4	551.9
Net profit	419.7	414.7	455.7	442.1	413.6
Earnings per share (RM)	279.8	276.5	303.8	294.74	275.44

Table 44.4 Debt and profitability ratio

Type of ratio	2008	2009	2010	2011	2012
Debt ratio (%)	92.43	90.74	89.17	87.89	86.62
Return on average shareholders' funds (%)	17.1	14.6	14.0	12.0	10.1
Interest coverage ratio (times)	1.1	1.6	1.6	1.6	1.6
Return on average total assets (%)	1.2	1.2	1.4	1.4	1.3
Dividend per share (RM)	16.7	22.5	22.5	22.5	45
Risk-weighted capital ratio (%)	21.6	21.6	26.8	35.7	36.4
Net tangible asset (RM per share)	17.36	20.21	23.10	25.86	28.35

capacities of 1.1 times in 2008 to 1.6 times in 2012. In fact, at the peak of global financial crisis in the mid 2008 with the capacity of 1.1 times, it did not default any contractual interest payment of RM699 million in its financial year of 2008. Interestingly, as an approved financial institution in Malaysia, its risk-weighted capital ratios were increasing from 21.6 % in 2008 to 36.4 % in 2012, representing a hefty increase of 71 %, indicating it has sufficient capital adequacy ratio as stipulated.

B. Findings for Debt and Profitability in 2008–2012

Moving forward favorably, Cagamas has a record of dividend payments to its shareholders for the past 5 years. Likewise, its returns on investment on shareholders' funds and assets are well documented in Table 44.4.

C. Findings for Revenue and Profits in 2008–2012

From Table 44.4, during global financial crisis of 2008–2009, Cagamas even had paid dividends of 17 sen and 23 sen in 2008 and 2009, respectively, a hefty increase of 35 %. Following strong financial performances for 2008–2012 with its satisfactory returns on investment in funds and assets, its net tangible asset was increasing steadily from RM17.36 to RM28.35, a superb growth of 63 %. As such, the net value of Cagamas is growing stronger even during global financial crisis, a strong testimony that Cagamas is a way forward to appeal banking institutions, insurance companies, asset management companies, as well as government funds and public companies to be its primary mortgage lenders. Even though Cagamas was formed on the mortgage American model of Fannie Mae and Freddie Mac that both reported to lose at least US$10 billion in 2008, Cagamas still remains profitable till 2012 for both conventional and shariah RMBSs.

The ability of RMBSs to have superb performance for both issues is testified by its key performance indicators. According to [17], for cumulative net default rate

for the underlying portfolio, conventional RMBS stood at 0.39 % which is much below its benchmark rate of 1.69 % or 4.33 times coverage, while shariah stood 0.43 % against its benchmark of 2.81 % that is 6.53 times coverage. Therefore, in terms of percentage of principal balance on the purchase date, shariah RMBS performs better than conventional with higher coverage of its cumulative net default.

For cumulative repayment rate, conventional RMBS recorded at 5.78 % that is lower than its indicative rate of 8.35 % or 1.44 times of its coverage, while shariah RMBS posted at 3.85 % against its indicative rate of 8.44 % or 2.19 times coverage. Therefore, as a percentage of principal balance on the date of purchase, shariah RMBS also performs better than conventional with a higher rate of coverage of cumulative prepayment rate. With its defaults and losses as well as prepayments of the GSHLs continuing to fall from year to year, Cagamas is seen capable to provide funding to government staff housing loans (GSHLs) in Malaysia continuously and consistently.

D. Discussions

The goodness of fit of the models visibly shows that it is good and fit, as observed by the F statistics. On top of that, the significant positive relationship at 0.1 level from loan to value to primary market spread in Malaysia is contradicted with the findings from the work of [4]. The expected coefficient sign is positive, as loans with a lower loan-to-value ratio (junior tranches) have a lower expected recovery rate in case of default than loans with a higher loan-to-value ratio (senior tranches) and therefore requires a higher return.

Apart from the constant variables, the estimation output exhibits that coefficient for transaction size is also having a significant positive relationship at 0.05 level for estimation models, and it is coherent with the findings of Vink [14] which are significant with a positive coefficient in the other markets' subsamples. This could indicate that investors – on average – associate larger transactions placed on markets other than the Euromarket with lower ex post liquidity.

While for lead manager there are significant negative relationships to spread at 0.05 level. The coefficient for lead manager is where as lead manager increases by 1 %, it will decrease the spread by 5.74 %. The result is contradict with findings by [18]. In fact, at the peak of subprime crisis in 2008–2009, it managed to weather its impacts by increasing net income with an unexpected steady rise of 7 %. At the peak of global financial crisis in the mid 2008 with a capacity of 1.1 times, it implied that it did not default any contractual interest payment of RM699 million in its financial year of 2008.

As such, the net value of Cagamas is growing stronger even during global financial crisis, a strong testimony that Cagamas is a way forward to appeal banking institutions, insurance companies, and asset management companies, as well as government funds and public companies to be its primary mortgage lenders. Even

though Cagamas was formed on the mortgage American model of Fannie Mae and Freddie Mac that both reported to lose at least US$10 billion in 2008, Cagamas still remains profitable till 2012 for both conventional and shariah RMBSs.

44.6 Conclusion

Overall, the basic model was used in this study to examine the relationship between the determinants or independent variables with the primary market spread which is statistically significant for the three independent variables. From eight hypotheses, two hypotheses support that the determinants have a relationship with primary market spread. It can be concluded that loan to value, transaction size, and lead manager significantly contribute to the determinants of primary market spread.

In terms of measurement of performance of Cagamas, it is significantly consistent in profitable records throughout the period; even every share that the shareholder has earned was consistently stable during a 5-year period by holding the portfolio for long term. The long-term debt shows debt improvement in terms of reducing the debt over equity within the period and increasing dividends every year, with its firm value that keeps on increasing every year. Overall, findings from this study contribute to the body of the knowledge as a testimony for the success of Cagamas as an intermediary between long-term investors and lenders in the Malaysian mortgage market.

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Chapter 45
Financial Behavior of Credit Cardholders on the Implementation of Tiered Interest Rate

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Abstract It is crucial for any individual, families, and other aggregate well-being to have knowledge, information, and education on financial literacy to facilitate them to make a significant financial decision that may affect their lives as well as the financial health of the country. In July 2008, Bank Negara Malaysia has implemented a tiered pricing on credit card as a measure to promote and educate the card users to be financially disciplined. The research indicates that the implementation creates dissatisfaction among cardholders especially those who make partial or minimum repayment monthly where a tiered finance fee on the 13th month is charged depending on the tracking repayment record for the past 12 months and the 20-day interest-free period is no longer applicable to them.

Keywords Financial behavior • Tiered interest rate • Financial literacy

45.1 Introduction

Today, credit cards have been regarded as the fast, effective, and reliable mode for financial transaction. Their characteristics of being conveniently used and time saving have made them popular to the people. In addition, shops, malls, retail outlets, and petrol stations have encouraged and promoted the use of credit cards widely, with various benefits offered by banks to the customers ranging from rewarding points, balance transfer, unlimited cash back, etc. Though the usage of credit cards has been expanding very fast, and people are overjoyed by the services offered by the banks, many are not aware of the debt they may incur. In 2007, Bank Negara Malaysia (BNM) stated that easy access of Malaysians to credit and credit cards has led to an increased indebtedness of the household sector. The Annual

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Report of BNM [1] disclosed that the major portion of the Malaysians household debt goes to paying off housing loans followed by car loans, personal financing, securities purchase, and credit cards. Even though the Malaysian household debt on credit cards is still low, it is a good move made by the government to control habit spending by Malaysians using credit cards. This action would eventually control Malaysians especially the young ones from bankruptcy. This paper examines the effects of the implementation of the tiered interest rate on credit card on the cardholders. Specifically, the paper intends to see the factors that influence the cardholders' repayment modes and to what extent the implementation of the tiered interest affects the lifestyle of cardholders to be more prudent in their financial management. The structure of this paper is as follows. First, a brief introduction on the topic is given then followed by a brief overview of the literature. Third, it describes the methodology of the paper as well as the objectives of the study. Fourth, it discusses the findings and, finally, a conclusion.

45.2 The Tiered Interest Rate: An Overview

It is deemed important for the household to be financially literate as to ensure their credit remains within prudential limits. In July 2008, BNM has implemented a tiered pricing on credit card as a measure to promote and educate the card users to be disciplined and systematic in managing their finances. Even, BNM has been continuously introducing and implementing another measure to inculcate sound financial and debt management among credit card users. Research made by Maybank Research [2] exposed that the number of credit cards in circulation has fallen from 10.8 million cards in 2008 to 8.2 million by the end of May 2013, resulted from Bank Negara's decision to restrict credit card issuance in 2011. Consequently, credit card balances make up just 4.2 % of household debt today. What is tiered interest rate? Table 45.1 explains the structure of tiered interest rate.

45.3 Literature Review

Credit cards, as one of the convenient mode of payment, have attracted many people to possess it, regardless of socioeconomic status [3, 4]. In addition, the credit cardholders have an access to get credit facility without having hassle to follow the requirements as needed by the banks. Worthington [5], Mitchell and Mickel [6], Durkin [7], and Lee and Kwon [8] viewed that credit cards promote the concept of buy now and pay later which the users have benefits not only in terms of delaying the payment but allowing them to revolve credit facility with a stipulated credit limit. Besides that, several studies have been conducted in investigating the usage of credit cards. It is noted that the usage of credit cards is significantly influenced by convenience, sense of security, Internet shopping or online payment,

Table 45.1 Tiered pricing structure

Features before tiered pricing structure	Features after tiered pricing structure
Finance charges:	Finance charges:
(a) 1.5 % per month or 18 % per annum on the outstanding amount calculated on a daily basis	(a) 1.25 % per month or 15 % per annum on the outstanding amount calculated on daily basis for cardholders who pay minimum repayment promptly for 12 consecutive months
	(b) 1.42 % per month or 17 % per annum on the outstanding amount calculated on daily basis for cardholders who pay minimum repayment promptly for 10 consecutive months
	(c) 1.5 % per month or 18 % per annum on the outstanding amount calculated on daily basis for cardholders who do not pay minimum repayment promptly
Late payment fees	Late payment fees
(a) Minimum of RM5 or 1 % of total out-standing balance as at statement date, which-ever is higher	(a) Minimum of RM10 or 1 % of total out-standing balance as at statement date, which-ever is higher, capped to a maximum of RM100
20-day interest-free period	20-day interest-free period
(a) Applicable to all retail transactions from the date of purchase of the monthly billing statement	(a) Applicable to all retail transactions from the date of purchase of the monthly billing statement
	(b) Applicable to cardholder who make full payment of the previous month outstanding balance only

Note: The interest-free period refers to the period from the posting date of the card transactions to the card account to the due date, which would be a minimum of 20 days after the statement date

and promotional factors [9–12]. Likewise a study made by Kennickell et al. [13] on the sample of 4,309 households disclosed the factors influencing consumers' usage of the cards. Specifically, credit limit of bankcards, outstanding balance owed on bankcards, credit history, attitude toward credit, income, education, age, and ethnicity influence consumers' use of store cards as a medium of financing. The results recommended that credit availability/worthiness is closely related to the use of store cards on a revolving basis. These consumers use store cards to supplement their limited credit availability. Furthermore Ramayah et al. [14] and Abdul-Muhmin and Umar [9] have conducted surveys on Malaysians to examine their attributes, attitudes, and behavior on credit card usage. Among the major factors driving the usage of credit cards are long interest-free periods, wide acceptance, higher credit limit and image of the bank, besides, advertising, and other promotional activities carried by the banks. In addition, finding made by Iswana and

Ahmad [15] has associated the usage of card with improvement of Malaysians' standard of living.

45.4 Research Methodology

In view of the research issue and objectives, this study was conducted as a descriptive research. In order to evaluate the implications on BNM tiered interest rate on credit card to cardholders, the questionnaires were distributed manually to 120 respondents. The data was analyzed using the Statistical Package for Social Science (SPSS) software.

45.5 Findings and Discussion

Findings of the study will be divided into four parts. The first part discusses on the general information of credit card ownership. The second part exposes the implications of the BNM tiered interest rate on credit card to cardholders. The next part discloses respondents' determinant of possessing credit card and lastly the respondents' profiles.

Table 45.2 Information of credit card ownership

	Description	Frequency	%
Credit cardholder	Yes	88	88.0
	No	12	12.0
Type of credit card	Visa	17	19.0
	Master	30	34.1
Privilege card	Visa and master	41	46.6
	Platinum	2	2.3
	Gold	28	31.8
	Classic	48	54.5
	Platinum and gold	8	9.1
	Platinum and classic	2	2.3
Total credit card	1–2	54	61.4
	3–4	29	33.0
	>4	5	5.7
Mode of repayment	Pay full	27	30.7
	Varies	54	61.4
	Minimum 5 %	7	8.0
Awareness	Fully aware	40	45.5
	Not aware	38	43.2
	Do not bother	10	11.4

Table 45.3 The implications of the BNM tiered interest rate on credit card to cardholders

	Description[a]	Frequency	%
(i) *The perception on the standard features of credit card*	SD	16	18.2
(a) Finance charges	D	38	43.2
1.5 % p.m. or 18 % p.a. on the outstanding amount calculated on a daily basis	N	20	22.7
	A	12	13.6
	SA	2	2.3
(b) Late payment fees	SD	39	44.3
Minimum of RM5 or 1 % of total unpaid balance, whichever is higher	D	29	33
	N	6	6.8
	A	12	13.6
	SA	2	2.3
(c) 20-day interest-free period applicable to all retail transactions from the date of the monthly billing statement	SD	2	2.3
	D	2	2.3
	N	2	2.3
	A	19	21.6
	SA	63	71.6
(ii) *Revised features of BNM tiered interest rate on credit card*	SD	7	8.0
(a) Finance charges	D	17	19.3
1.25 % p.m. or 15 % p.a. of balance outstanding for cardholders who pay minimum repayment promptly for 12 consecutive months	N	24	27.3
	A	32	36.4
	SA	8	9.1
1.42 % p.m. or 17 % p.a. of balance outstanding for cardholders who pay minimum repayment promptly for 10 consecutive months	SD	12	13.6
	D	27	30.7
	N	36	40.9
	A	9	10.2
	SA	4	4.5
1.5 % p.m. or 18 % p.a. of balance outstanding for cardholders who do not fall into the above categories	SD	10	11.4
	D	28	31.8
	N	35	39.8
	A	13	14.8
	SA	2	2.3
(b) Late payment fees	SD	46	52.3
Minimum RM10 or 1 % of total outstanding balance as at statement date, whichever is higher, capped to a maximum of RM100	D	29	33.0
	N	8	9.1
	A	5	5.7
	SA	0	0
(c) 20-day interest-free period	SD	44	50.0
Applicable to cardholders who make the full outstanding balance of the previous month	D	6	6.8
	N	1	1.1
	A	16	18.2
	SA	21	23.9

Table 45.3 (continued)

	Description[a]	Frequency	%
(iii) *Revised features of BNM tiered interest rate on credit card benefit the cardholders*	SD	24	27.3
Settle debt faster	D	25	28.4
	N	14	15.9
	A	21	23.9
	SA	4	4.5
Discipline in making payment	SD	5	5.7
	D	21	23.9
	N	23	26.1
	A	35	39.8
	SA	4	4.5
Prudent in spending	SD	4	4.5
	D	14	15.9
	N	35	39.8
	A	29	33.0
	SA	6	6.8
Reduce on consumption	SD	4	4.5
	D	20	22.7
	N	34	38.6
	A	24	27.3
	SA	6	6.8
Improve personal financial management	SD	4	4.5
	D	17	19.3
	N	36	40.9
	A	25	28.4
	SA	6	6.8

[a]*SD* strongly disagree, *D* disagree, *N* neither, *A* agree, *SA* strongly agree

Findings in Table 45.2 revealed that 88 % of the respondents possessed credit card. The result indicates that 61.4 % of the respondents make varied monthly repayment depending on the budget even though 40 % of them are fully aware of the revised tiered interest rate.

Table 45.3 revealed the findings that 43.2 % of the respondents disagree with finance charges of 1.5 % per month, 44.3 % strongly disagree with the late payment fees, and 71.6 % strongly agree with 20-day interest-free period. After the implementation of tiered interest on credit card, 36.4 % of respondents agree with finance charges of 1.25 % per month, majority neither agrees on finance charges of 1.42 % per month nor 1.5 % per month, 52.3 % strongly disagree on the increase on late payment fees, and, finally, 50 % strongly disagree on 20-day interest-free period given to only prompt paymasters. Findings in Table 45.3 also disclosed respondents' feelings on the benefits of the implications of the tiered interest rate in terms of prudent spending, reduction in consumption, and improvement in the management of personal financing.

Table 45.4 revealed the basic intention of cardholders possessing a credit card. Forty-eight percent of the responses strongly agree that the main purpose of holding

Table 45.4 Respondents' determinants of possessing credit card

	Description	Frequency	%
Lowest APR	SD	2	2.3
	D	4	4.5
	N	16	18.2
	A	44	50.0
	SA	22	25.0
Balance transfer card	SD	4	4.5
	D	13	14.8
	N	47	53.4
	A	23	26.1
	SA	1	1.1
Zero annual fees	SD	0	0
	D	0	0
	N	4	4.0
	A	22	25.0
	SA	62	70.5
No joining fees	SD	0	0
	D	0	0
	N	8	9.1
	A	27	30.7
	SA	53	60.2
Point redemption	SD	0	0
	D	3	3.4
	N	13	14.8
	A	39	44.3
	SA	33	37.5
Cash back credit card	SD	5	5.7
	D	4	4.5
	N	48	54.5
	A	25	28.4
	SA	6	6.8
Promotion credit card	SD	0	0
	D	4	4.5
	N	34	38.6
	A	46	52.3
	SA	4	4.5
Points rewards	SD	0	0
	D	0	0
	N	8	9.1
	A	53	60.2
	SA	27	30.7

Table 45.4 (continued)

	Description	Frequency	%
Convenient for shopping	SD	2	2.0
	D	0	0
	N	0	0
	A	38	38.0
	SA	48	48.0
Cash advance/borrowing	SD	6	6.8
	D	24	27.3
	N	33	37.5
	A	21	23.9
	SA	4	4.5
Lifestyle	SD	4	4.5
	D	26	29.5
	N	34	38.6
	A	12	13.6
	SA	12	13.6

Table 45.5 ANOVA on awareness of the tiered interest rate features

		Sum of squares	df	Mean square	F	Sig
Finance charges 1.25 % or 15 % p.a. of balance	Between groups	6.637	2	3.318	2.847	0.064
	Within groups	99.079	85	1.166		
	Total	105.716	87			
1.42 % p.m. or 17 % p.a. of balance outstanding	Between groups	0.948	2	0.474	0.469	0.627
	Within groups	85.916	85	1.011		
	Total	86.864	87			
1.5 % p.m. or 18 % p.a. of balance outstanding	Between groups	0.027	2	0.013	0.015	0.985
	Within groups	78.053	85	0.918		
	Total	78.080	87			
Late payment fees	Between groups	1.163	2	0.582	0.773	0.465
	Within groups	63.928	85	0.752		
	Total	65.091	87			
20-day interest-free period	Between groups	8.804	2	4.402	1.448	0.241
	Within groups	258.468	85	3.041		
	Total	267.273	87			

Table 45.6 Respondents' profiles

	Description	Frequency	%
Age	18–24 years	2	2.0
	25–34 years	27	27.0
	35–44 years	56	56.0
	45–54 years	15	15.0
Gender	Male	36	36.0
	Female	64	64.0
Race	Malay	74	74.0
	Chinese	15	15.0
	Indian	11	11.0
Occupation	Professional	18	18.0
	Businessman	13	13.0
	Administrator	35	35.0
	Technical and sale	10	10.0
	Others	24	24.0

the card is due to convenience and easy to carry for shopping. 44.3 % go for point redemption, and 37.5 % neither agree that it is for cash advance or borrowing and also for lifestyle purpose. The main criteria for cardholders possessing credit card are that 70.5 % strongly agree because of zero annual fees and 60.2 % of no joining fees.

Findings in Table 45.5 revealed that there is no significant variance on the above analysis as the P-value of all tiered interest rate features is >0.05. As such, awareness of the revised features has no significant effect on the mode of repayment of the monthly repayment (Table 45.5).

The demographic findings revealed that 74 % are Malay cardholders, 64 % are female, and 56 % of the respondents are aged 35–44.

45.6   Conclusion

The findings revealed that there exists dissatisfaction among the cardholders because they are losing the benefit from 20-day interest-free period, whereby without this feature, additional interest will be incorporated into the remaining outstanding balance as the interest starts running upon the transaction being debited into the statement of account. This will automatically prolong the tenure of settlement, hence forcing the cardholder to source financing from other their financial commitments, for example, housing loan or personal loan. Therefore, it is recommended that BNM should come out with better and attractive features for the cardholders who are making partial or minimum 5 % repayment that may benefit them as well. In addition, any moves to discipline credit management of the cardholders should consider the rising of the cost of living, hence affecting their standard of living.

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Chapter 46
Nonlinearity Between Ownership Concentration and Firm Value

Hamizah Hassan, Salwana Hassan, Norzitah Abdul Karim, and Norhana Salamuddin

Abstract   The main objective of this study is to examine the nonlinear relationship between ownership concentration and firm value. The issue of dynamic endogeneity between the two variables is investigated in this study. Empirically, there is no evidence of nonlinearity between ownership concentration and firm value. The result also suggests that dynamic endogeneity is not serious in influencing the relationship between ownership concentration and value of Malaysian firms.

46.1   Introduction

Corporate governance is a system or structure by which the firm via its board of director applies the process of making managerial decision in corporate affairs. It must include the interests of all the internal and external stakeholders. Good corporate governance is very much associated with the financial performance of a corporation. As such there are several corporate governance mechanisms used in order to determine performance, specifically financial performance, and one of them is ownership concentration (OC). Large shareholders are able to actively be involved in monitoring managers, thus affecting future performance. Interesting enough, the firm's current performance also somehow affects its future actions

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including corporate governance, indicating the dynamic relationship between the factors.

OC is measured by the amount of shares owned by investors that can either be individual or institutional investors. They can have a strong monitoring power toward the firm's decision as a form of incentive to protect their investment. As a result both managers and board of director are very concerned with the preferences and interests of the substantial shareholders. This indicates a strong governance power, that is, those with large shareholding have the role to monitor the firm's management.

Firm value or firm performance can be measured using both accounting and market-based performance measures. Good corporate governance will boost the value of a firm. It is therefore the objective of this paper to investigate the nonlinear relationship between ownership concentration and firm value among nonfinancial corporations in Malaysia.

46.2   Literature Review

Ownership concentration is the amount of stock owned by individual investors in a corporation, and it is the indicator to determine power. According to [1], ownership concentration can be categorized as closely held if it has at least one shareholder who controls at least 20 % of the firm's equity. Firm value is financial performance that acts as an indicator for the financial well-being of a firm. It can be measured either using market-based performance measure such as stock price [2] or accounting-based performance measures like profitability [3] or ROA, ROE, and Tobin's Q [4, 5]. Many studies were carried out in different countries to investigate the relationships between ownership concentration and financial performance that include [6] in the Brazilian capital market, [7] in Israel, [8] in Iran, [9] in India, [2] in China, and [10] in Korea. However, the mixed results obtained encouraged us to study the relationship within the Malaysian nonfinancial firms.

The negative relationships between OC and performance have been revealed by some evidences from these studies [6, 8, 9, 11]. This is caused by historically weak institutional framework and high concentration of control rights that is still present in the Brazilian capital market.

Results from other studies evidenced nonlinear relationships between the variables, and they are either quadratic, cubic, U-shaped, or inverted U-shaped relationship. Manawaduge et al. [3] found U-shaped association between OC and firm value in Sri Lankan companies that suggests the existence of market anomalies common to most emerging markets. This U-shaped relationship between ownership concentration and firm performance was also found in [2 and 12]. On the other hand, [13, 7, and 14] found inverted U-shaped relationship between insider ownership and corporate performance.

Similar finding by [15] where OLS and 2SLS regressions were performed on a sample of 183 firms listed at the Karachi Stock Exchange over the period 2003–

2008 revealed that both the market- and accounting-based measures of performance are negatively related to the ownership percentage of incumbent managers. Among the control variables, Tobin's Q increases with growth opportunities and tangibility of assets, whereas it decreases with firm size, market risk, firm-specific risk, and ownership percentage of institutional shareholders. This is also supported by [16] who found a nonlinear relationship between ownership concentration and firm performance in firms with high (low) concentrated ownership structure, respectively. Further, [4] on a panel data analysis of 68 nonfinancial firms listed on Istanbul Stock Exchange (ISE) with a total of 544 firm-year observations over the entire 1994–2005 period found a nonlinear relationship between the retained proportion of the insiders' share holdings after IPO and the dependent variables (OPROA, ROA, and Tobin's Q).

It is, therefore, in this study the relationship between OC and firm value within the Malaysian nonfinancial firms is to be identified.

46.3 Data and Methodology

A. Data

This study uses data that consists of all listed firms on Bursa Malaysia for the period of 2007–2012 obtained from OSIRIS, Thomson ONE Banker, Bursa Malaysia website, and the firms' websites. In accordance with the usual practice, firms in the financial sector are excluded from the study, as well as foreign firms that may have different ownership structures. After excluding the missing observations of the dependent and independent variables, the final sample comprises 367 firms for tests.

The dependent variable of this study is firm value and the proxy used is Tobin's Q (Q), which is measured by the sum of year-end market capitalization and book value of total debt and book value of preferred shares scaled by book value of total assets. As for the independent variable, ownership concentration, we use the total percentage of ordinary shares owned by a firm's largest shareholder (OC1) and the largest five shareholders (OC5). Ownership concentration might have dual effects on firm value, either serving as an effective monitoring mechanism on managers [17, 18] or tending to expropriate on small shareholders [19]. The former will result in a positive effect on firm value, while the latter will have a negative impact.

Several control variables are used in the tests as suggested in the literature that firm value is influenced by:

1. Board characteristics: We use three characteristics: (a) board independence (IND) measured by the proportion of outside members in the board, (b) CEO duality (DUAL) that takes 0 if the CEO is also the board chairman and 1 otherwise, and (c) managerial ownership (MANOWN) estimated by the percentage of shares owned by the executive directors. The hypotheses for board independence

and managerial ownership are that these two variables have a positive effect on firm value, while the CEO duality has a negative effect.

2. Debt (*D*): This study uses debt ratio as the proxy measured by book value of total debt scaled by book value of total assets. Debt might have a positive effect on firm value if it serves as a disciplinary device in mitigating ownership concentration's expropriation on small shareholders. As such, debt can also play a role as an effective monitoring mechanism [19]. On the other hand, if debt is seen to increase the agency cost of debt, it will result in a negative effect on firm value [16].

3. Investment (*INV*): Investment could also represent the production capability of a firm. Hence, investors might anticipate good future prospects for the firm, thus enhancing firm value [20]. It is estimated by the capital expenditure scaled by book value of total assets.

4. Firm size (*SI*): Size might negatively affect firm value as, if size is too large, there is a possibility that the firm has a high agency cost and difficulties in monitoring, which would reduce firm value. This hypothesis follows [21]. To control for this effect, we use natural log of book value of total assets.

5. Firm age (*AGE*): Age is expected to have a negative effect on firm value, as young firms are seen to have better growth prospects [22]. This study uses natural log of number of years since the firm's incorporation to control for firm age.

6. Growth opportunities (*GROWTH*): It is estimated by the current value of sales less lagged value of sales scaled by lagged value of sales. The hypothesis is growth opportunities positively affect firm value.

7. Change in assets turnover (*AT*): Firm value can be positively influenced by change in assets turnover as a high turnover of assets indicates that the firm is efficient in generating income [23]. It is measured by sales scaled by assets change, where it is defined as current value of sales scaled by book value of total assets less lagged value of sales scaled by book value of total assets.

8. Profitability (*ROA*): Profitability is expected to have a positive effect on firm value. We use return on assets as the proxy estimated by earnings before interest and taxes scaled by book value of total assets.

9. Dividend (*DIV*): This study uses dividend yield to control for this variable. Firm value is expected to be positively influenced by the dividend.

B. Estimation Model

The following equation is estimated in order to test our hypotheses:

$$\begin{aligned} Q_{it} = {} & \alpha_0 + \alpha_1 OC_{it} + \alpha_2 OC_{it}^2 + \alpha_3 IND_{it} + \alpha_4\, DUAL_{it} + \alpha_5 MANOWN_{it} \\ & + \alpha_6 D_{it} + \alpha_7 INV_{it} + \alpha_8 SI_{it} + \alpha_9 AGE_{it} + \alpha_{10} GROWTH_{it} \\ & + \alpha_{11} AT_{it} + \alpha_{12} ROA_{it} + \alpha_{13} DIV_{it} + X_{it} \end{aligned} \quad (46.1)$$

where i and t denote firm and year, respectively. The dependent variable is Q which is Tobin's Q, while the independent variables are the linear and quadratic functions of ownership concentration, OC and OC^2, respectively. The board characteristics variables are IND, $DUAL$, and $MANOWN$ which denote board independence, CEO duality, and managerial ownership, respectively. The following are the control variables: D, INV, SI, AGE, $GROWTH$, AT, ROA, and DIV are debt, investment, firm size, firm age, growth opportunities, change in assets turnover, profitability, and dividend, respectively. X_{it} is the error terms. Firm-specific effects η_i and time-specific effects ω_t are used to control the unobservable firm specific and time specific, respectively. Hence, the error terms X_{it} are transformed into $\eta_i + \omega_t + \varepsilon_{it}$, where ε_{it} is the random disturbance. The hypotheses refer to independent and control variables as described in the previous section.

C. Estimation Methods

This study uses two types of estimation in order to meet the objectives of the study which is to investigate the dynamic endogeneity issue. As such, two-way fixed effects (FE) and two-step system generalized method of moments (GMM) are employed. The former only controls the unobserved heterogeneity across firms and over time, whereas the latter not only controls the unobserved heterogeneity across firms and over time but also the dynamic endogeneity and simultaneity effects. Results of both estimations are compared. If there are consistencies, the interrelationships between variables of interest are not influenced by the dynamic endogeneity issue, and vice versa. This method is used in previous studies, for instance, [24, 20]. To take into account the panel-specific autocorrelation and heteroskedasticity, Huber-White corrected robust standard errors is used in FE estimation, whereas Windmeijer corrected robust standard errors is used in GMM estimation.

In addition to the GMM estimation, the instrument set is tested for validity by conducting an analysis based on the Hansen test [25] of the full instrument set and the difference-in-Hansen test of a subset of instruments for overidentifying restrictions (H_0 = valid instruments). As the estimator assumes that there is no serial correlation in the error term, ε_{it}, tests for serial correlation are conducted where the residuals in the first differences (AR1) should be correlated, but in the second differences (AR2), there should be no serial correlation [26].

46.4 Findings and Discussion

A. Descriptive Statistics

Table 46.1 presents the summary statistics of the variables used in this study. Tobin's Q shows a mean value of 0.75, as well as minimum and maximum values of 0.07 and 7.69, respectively. Applying the essential interpretation, the mean of Tobin's Q found in this study indicates that, on average, the market value of the Malaysian firms is 0.75 lower than the value of the firms' total assets.

As can be seen in the table, the mean value of ownership concentration of the largest shareholder is 28.06 %. This suggests that the largest shareholder of Malaysian firms has a fairly concentrated ownership. Setia-Atmaja [1] defines ownership concentration by categorizing the sample firms as closely held or widely held firms. Firms are categorized as closely held if a firm has at least one shareholder who controls at least 20 % of the firm's equity. In addition, the largest shareholder's ownership concentration also ranges from a minimum of 0.42 % to a maximum of 86.81 %.

With regard to the ownership concentration of the largest five shareholders, the mean value is 53.2 %. This verifies that half of the total percentage of shares is already in the largest five shareholders' hands. It also suggests that the largest five shareholders have a fairly concentrated structure of ownership. The minimum and maximum values of the largest five shareholders' ownership concentration are 8.57 % and 99.98 %, respectively.

For the board characteristics, it shows that the mean values of board independence and managerial ownership are 0.44 % and 12.42 %, respectively. The results indicate that almost half of the board members are nonexecutive directors, and the

Table 46.1 Summary descriptive statistics

	Mean	Std. dev	Minimum	Maximum
Tobin's Q	0.75	0.58	0.07	7.69
Largest shareholder (%)	28.06	16.14	0.42	86.81
Largest five shareholders (%)	53.20	16.58	8.57	99.98
Board independence	0.44	0.13	0.11	0.89
Managerial ownership	12.42	16.57	0	74
CEO duality	0.10	0.30	0	1
Debt ratio	0.23	0.16	0	0.82
Investment	3.88	5.25	0	73.40
Firm actual age	24.48	16.66	1	98
Growth	10.81	50.05	−94.73	776.51
Change in assets turnover	0.78	0.60	0.02	5.53
ROA	0.05	0.09	−0.70	0.75
Dividend	1.84	2.39	0	17.02
Total assets (RM millions)	1,100.97	635.19	1	2,200

ownership of the Malaysian firms are not concentrated in the managers' hands. Also, the minimum (maximum) values of board independence and managerial ownership are 0.11 (0.89) and 0 % (74 %), respectively.

The mean for the other control variables used in this study are debt ratio 0.22, investment 3.88, firm actual age 24.48, growth 10.81, change in assets turnover 0.78, ROA 0.05, dividend 1.84, and total assets representing firm size 1,100.97.

B. Regression Analysis

The study first conducts the nonlinear tests by using the FE estimation and followed by the GMM estimation as presented in this section. Table 46.2 presents the findings of the test using the FE estimation, while Table 46.3 exhibits the findings using GMM estimation. In both tables, Panel A states the regression estimates obtained by using OC1 as a measure of ownership concentration and Panel B states the estimates using OC5 as a measure of ownership concentration.

In both Tables 46.2 and 46.3, it is found that OC1 and OC5 have a nonlinear association with Tobin's Q as the coefficients of both OC1 and OC5 linear and quadratic functions are positive and negative, respectively. This inverse U-shaped nonlinear association suggests that, at a low level, a positive association between ownership concentration and firm value is found, and, at a high level of ownership concentration, they are negatively related. However, there is no firm evidence that the ownership concentration is nonlinearly related with firm value, as both linear and quadratic functions of the explanatory variable are insignificant. The exception is for the quadratic function of the largest five shareholders' ownership concentration, found to be negatively significantly associated with firm value at the 10 % level. This indicates that at a high level of ownership concentration, the largest five shareholders expropriate the small shareholders by extracting the firm wealth at the expense of the latter. Nevertheless, this evidence is only found when using the FE estimation, and the significance disappears when GMM estimation is employed. This suggests that the negative quadratic function of the largest five shareholders in the FE estimation is biased, and after taking into account dynamic endogeneity issue, it is no more significant.

For the board characteristics, only the managerial ownership is found to be significantly related to firm value in Panel B when using the GMM estimation. The positive relationship between managerial ownership and firm value suggests that by giving ownership of the firm to managers, it aligns the interests of managers and shareholders in maximizing values.

For the other control variables in Table 46.3, it is found that debt, change in assets turnover, and return on assets are positively associated with firm value at the 1 % significance level. These indicate that (1) debt plays an effective role as a disciplinary mechanism in mitigating agency problem II between large and small shareholders, (2) firms are efficient in generating income, and (3), as been expected, profitability has a positive effect on firm value. In addition, the significantly

Table 46.2 FE estimation

	Panel A	Panel B
Variable	Q	Q
OC1	0.002	
	[0.58]	
$OC1^2$	−0.000	
	[−0.84]	
OC5		0.006
		[1.60]
$OC5^2$		−0.000*
		[−1.92]
IND	0.153	0.156
	[1.27]	[1.32]
DUAL	−0.067	−0.068
	[−0.39]	[−0.39]
MANOWN	0.002	0.002
	[1.55]	[1.50]
D	0.437***	0.425***
	[2.93]	[2.87]
INV	0.001	0.001
	[0.63]	[0.60]
SI	−0.069*	−0.067*
	[−1.67]	[−1.68]
AGE	−0.32***	−0.32***
	[−3.41]	[−3.39]
GROWTH	−0.000	−0.000
	[−0.62]	[−0.69]
AT	0.196***	0.198***
	[3.54]	[3.61]
ROA	0.762***	0.760***
	[3.54]	[3.54]
DIV	−0.006	−0.006
	[−1.21]	[−1.26]
R-squared	0.15	0.15
F statistics	11.74	11.45
[*P*-value]	[0.00]	[0.00]
Time effects	Included	Included
Firm effects	Included	Included

Model and variables employed are explained in the previous section. Robust *t*-statistics are presented in parentheses. Constant terms are not reported for convenience. *** and * denote statistical significance at 1 % and 10 % levels, respectively

negative relationship between size on one hand and age on the other hand with firm value is found at the 10 % and 1 % levels, respectively. For the size variable, it suggests that larger firms have higher agency costs as well as greater difficulties of

Table 46.3 GMM estimation

Variable	Panel A Q	Panel B Q
OC1	0.029	
	[1.65]	
OC1^2	−0.000	
	[−1.33]	
OC5		0.012
		[0.52]
OC5^2		−0.000
		[−0.40]
IND	−0.266	0.026
	[−0.54]	[0.05]
DUAL	−0.058	−0.223
	[−0.20]	[−0.81]
MANOWN	0.005	0.009**
	[1.02]	[1.98]
D	0.490	0.415
	[1.15]	[1.02]
INV	−0.000	0.003
	[−0.08]	[0.37]
SI	0.148**	0.165**
	[2.09]	[2.29]
AGE	−0.045	−0.031
	[−0.64]	[−0.47]
GROWTH	−0.000	−0.000
	[−0.50]	[−0.16]
AT	0.203**	0.240*
	[2.00]	[1.94]
ROA	−0.606	−0.921
	[−0.72]	[−1.46]
DIV	−0.015	−0.006
	[−0.77]	[−0.29]
AR(1)	−1.91	−2.02
[P-value]	[0.05]	[0.04]
AR(2)	−1.23	−1.49
[P-value]	[0.22]	[0.14]
Hansen test	41.39	53.40
[P-value]	[0.93]	[0.57]
Difference-in-Hansen test	34.17	40.58
[P-value]	[0.79]	[0.53]
F statistics	30.54	32.40

(continued)

Table 46.3 (continued)

Variable	Panel A Q	Panel B Q
[P-value]	[0.00]	[0.00]
Time effects	Included	Included
Firm effects	Included	Included

Model and variables employed are explained in the previous section. All variables on the right-hand side are treated as endogenous variables. Robust t-statistics are presented in parentheses. Constant terms are not reported for convenience. ** and * denote statistical significance at 5 % and 10 % levels, respectively

monitoring either firm managers or large shareholders, depending on which type of agency problem the firm is facing. As for age, it indicates that young firms are having better growth prospects as compared to older firms, supporting the hypothesis of a negative association between age and firm value.

After controlling for the endogeneity issue, Table 46.3 exhibits that only size and change in assets remain significantly related with firm value, while debt, age, and return on assets are insignificant. This indicates that endogeneity does influence the relationship between debt, age, and return on assets with firm value. It should be noted that the association between size and firm value turns to be positive which suggests that the hypothesis is not evidenced after taking into account the dynamic endogeneity issue. Thus, larger firms are valued higher by the market and vice versa. This study also suggests that board independence, CEO duality, investment, growth, and dividend are not significant determinants of firm value.

46.5 Conclusion

The objective reported in this study is to investigate the nonlinear relationship between ownership concentration and firm value. Therefore, the study is able to answer the question of whether large shareholders through their concentration of ownership monitor firm managers and/or expropriate small shareholders. While undertaking this empirical approach, the study also examines whether dynamic endogeneity issue is an important determinant of the relationship between ownership concentration and firm value in Malaysian firms.

In general, this study fails to find evidence of nonlinearity between ownership concentration and firm value. Hence, it fails to compute on the inflection point of the ownership concentration, although an inverse U-shaped relationship is found. The study concludes that dynamic endogeneity is not a serious issue in influencing the relationship between ownership concentration and firm value in Malaysian firms. This study contributes to the knowledge of corporate governance and corporate finance literature by investigating the nonlinear relationship between ownership concentration of the largest shareholders and firm value in the most recent

Malaysian context by taking into account dynamic endogeneity issue. For future avenue, other proxies of ownership concentration could be employed as well as other estimation methods.

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Chapter 47
Harmonization of Islamic Insurance Models within the *Shari'ah* Parameter in Selected Countries

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Abstract Even though Islamic insurance industry is experiencing a period of rapid growth, in terms of net contributions and profit, however, at the same time, the development of Islamic insurance is still faced with tough obstacle constraints due to *Shari'ah* issues in certain aspects. Islamic insurance operations need to be fine-tuned to meet the Islamic direction and the needs of the Muslims. Different operational models in various Islamic jurisdictions; at the same time, models meet the needs of Muslims in general of Islamic insurance in the global Islamic economy, and each of these models has its own advantages and disadvantages. Also, there is no agreement among scholars on which of these models can be considered the best among them. These models whether *Wakala*, *Mudharabah*, *Waqaf,* or Hybrid have several problems which need to be studied and addressed, in order to strengthen the Islamic insurance industry globally.

The two challenging issues studied are one on the ownership of the Islamic insurance risk fund or the contribution fund and the other is surplus distribution accumulated from the risk fund. There is diversity in opinion as to whether certain practices are *Shari'ah* compliant. Other than that, a few services offered are disputed *Shari'ah* of its compliance by some *Shari'ah* scholars in certain regions. This led to layers of regulatory differences as in countries like Bahrain, Malaysia, and Sudan, which have initiated separate regulatory frameworks for Islamic insurance as a medium to ensure the rapid growth of encouraging Islamic insurance.

Keywords Islamic insurance model • Harmonization • Shari'ah • Malaysia • Bahrain • Sudan

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47.1   Introduction

Statistics indicate that the Muslim population continues to rise; they comprise about 25 % of the world's population, an increase of about 20 % from the mid-1990s [9]. About 1.5 billion or 22 % of the world population nowadays are followers of Islam as a religion [7]. This tremendous number and the expected increment in the coming years suggest some means of addressing the issues of human behavior pertaining to daily financial activities based on Islamic principles that should differ significantly from conventional or non-Islamic way [9]. It is a natural phenomenon in any society that everyone is exposed to all sorts of unexpected risks daily. These risks may occur to one's life, property, or even business ventures. Often, these risks affect the lives of many individuals in society in a way which is sometimes so damaging and shattering, that they may leave these unfortunate people in danger and helpless [13]. The question is what actions can be used to help the unfortunate people? One of the ways is through the application of insurance. Islamic insurance is an insurance scheme which is grounded in *Shari'ah* based on the contracts of transaction or *al-Muamala*, of which the primary objective is to uphold, among the parties involved, shared responsibilities on the basis of mutual cooperation in protecting individuals against unexpected risks [10].

There are different operational models (*Wakala*, *Mudharabah*, Hybrid, *Waqaf*) of Islamic insurance in the global Islamic economy, and each of these models has its own advantages and disadvantages, which leads to a lot of uncertainty among businesses about Islamic insurance and its impacts. Also, there is no agreement yet on which of any of these models can be considered superior among them. This means all of these models have several problems which need to be studied and addressed, in order to strengthen the Islamic insurance industry globally [11]. A recent article provides some research results that may strengthen the Islamic insurance worldwide. From the industry perspective, a more harmonize approach is required if Islamic insurance is to be developed nationally and internationally, with the different applications of Islamic insurance worldwide [4]. In addition, different *mazhabs* (*Hanafi*, *Maliki*, *Hanbali, and Shafie*), different thoughts, and lack of awareness are among the main issues facing Islamic insurance worldwide. As a result, the main areas to resolve are the global harmonization of Islamic insurance terms and a common consensus for a system to determine profits (or surplus) distributed to participants and shareholders. Harmonization in Islamic insurance models is considered as the way to get in more certainty [8]. Therefore, harmonization in regulation is critical to the future growth of Islamic insurance, because each Islamic insurance company must be approved by the *Shari'ah board*, so it is important for it to be approved by every *Shari'ah* scholar in Islamic finance. However, few Islamic scholars have remained opposed to Islamic insurance, stating that the industry techniques are simply legally misrepresented [2].

The inconsistency in regulatory guidelines makes Islamic insurance operators subject to changes of regulatory decisions and the possibility of increased regulatory compliance costs. On the other hand, developing an Islamic insurance best

practiced as a common model can help the market to facilitate cross-border business and support in enhancing the growth of the Islamic insurance market.

47.2   Research Methodology

A. Research Objective

In order to achieve compliance and development of Islamic insurance interdependence and integration between international markets and to enhance compatibility of the rules and regulations governing insurance companies, there is a need to harmonize the current model taking into consideration the legal aspects, the business, and the Islamic law.

With the international efforts on the practice of Islamic insurance, there are still a number of issues that need to be addressed and eventually to be applied and to organize international best practice for the organization of work interdependence especially in the growing business markets now that Islamic insurance has become an important part of the international financial system.

B. Research Method

The first aspect of this research uses the cross-sectional design to collect the data once over a period of months at a time and to measure the contemporary practice of Islamic insurance. The second aspect is concerned with the nature of the research which is descriptive. The focus is on a quantitative strategy design for the stage of collecting data using a close-end questionnaire.

This study requires the distribution of the questionnaire to four types of respondents, namely, customers of Islamic insurance, Islamic insurers working in the field, *Shari'ah* board members, and experts dealing with Islamic insurance. The researcher has not interfered with the daily activities of any of the respondents, which means the research is conducted with minimal interference within the organizations [12].

47.3   Conceptual Framework

The conceptual framework is the basis of the research, explaining and giving details to describe the variables which are believed to be relevant to the research problem, acknowledged through methods such as questionnaires and literature review. The conceptual framework of this research is to resolve the issue of "Islamic insurance"

with regard to operationalizing the various models with regard to their business paradigm and within the *Shari'ah* framework. Islamic insurance contract consists of three types of relationship: the relationship between the operators (company) and the participants, the relationship between the operators and the participants' fund, and the relationship between the participant and the fund [6].

According to Alkhulaifi [3], the three types of relationships are the relationships between the participants and the participants' committee, the relationship between the operators' (shareholders) committee and the participants' committee, and the relationship between operators (shareholders) and the shareholders' committee. *Shari'ah* standard from AAOIFI divides the relationships in Islamic insurance into three relationships: the relationship between the operators (shareholders), the sharing relationship (*musharakha*); the relationship between the operators and the participants' fund; and the relationship between the participants and the participants' fund [1].

The dependent variable of Islamic insurance models is subjected to many independent variables; the research predicted some. In this research, the dependent variable selected is harmonization of the model, which is subjected to many independent variables, and compliance with *Shari'ah* and business operation is selected, which are contribution, participants, operators' revenue, surplus distribution, *Shari'ah* board, corporate governance, *qard hassan*, and investment. For this research, two types of variables, which are dependent variable, which is a common model or best practice to narrow the gap between the differences in the practiced model of Islamic insurance contract, and independent variables, which are compliance with *Shari'ah* and business operation.

In order to determine and to describe the elements affecting each of the different models in the market, the research is established as a descriptive study. The researcher tapped from some elements of the models of Islamic insurance to describe each factor that helps to narrow down the gap of the models practiced in different countries [3]. The descriptive study helps to examine the aspects of each model that follows the supported general practice, manage systematically the elements of the models in each country and organization, take simple decision, and highlight models for further study [12].

A. *Data Analysis*

After coding and organizing, the collected data used the Statistical Package for Social Science (SPSS) Version 20 program [5] for descriptive analysis and for the question about "What are the main insurance principles applied in Islamic insurance?"

This question was answered using the mean scores and percentages. These analyses are used to examine the extent to which the Islamic insurance applied the conventional insurance principles in their operation and also identify those principles that mostly applied. The analysis also compares whether the compliance

Table 47.1 Analysis of conventional insurance principle in operation of Islamic insurance in Sudan, Malaysia, and Bahrain

Insurance principles						
Country		Ownership	Full disclosure	Right to subrogation	Proximate cause	Contribution
Sudan	Mean	3.83	4.11	2.73	2.57	2.96
	Std. deviation	1.352	1.389	1.311	1.555	1.675
Malaysia	Mean	4.00	4.32	4.39	4.30	4.30
	Std. deviation	0.426	0.674	0.655	0.594	0.668
Bahrain	Mean	4.50	4.67	4.19	3.85	4.25
	Std. deviation	0.583	0.651	0.834	0.489	0.444

and application of these general insurance principles by Islamic insurance companies in the three selected countries are applied in the same way or not. Five items describing the conventional principles and practice of insurance contract are included on the subscales measuring conventional insurance principles (Table 47.1).

The anchor point is 3.00, and any mean score above 3.00 indicates that such aspect of insurance principles is being adopted and applied by Islamic insurance companies. The findings show that applications of the conventional insurance principles are relatively varied among the three selected countries.

47.4 Research Results

Findings regarding the customers' perception about Islamic insurance in the industry. The results show that the reasons for customers' choice of Islamic insurers comprise of religious consideration ($m = 4.17$; $SD = 1.29$), value considerations ($m = 4.03$; $SD = 1.44$), both religious and value consideration ($m = 4.10$; $SD = 1.10$), and other reasons ($m = 2.40$; $SD = 1.01$) which are all satisfactorily high. In addition, the results also show that customers also get information dissemination mechanism effective enough to facilitate decision making ($m = 2.90$; $SD = 1.22$); the Islamic insurance products subscribed to effectively meet your satisfactions ($m = 2.86$; $SD = 1.21$); Islamic insurance companies disclose appropriate information to you on the management of policyholders' fund ($m = 2.81$; $SD = 1.15$); and customers have awareness of most of Islamic insurance transaction ($m = 2.66$; 1.44).

Similarly, customers have basic knowledge about Islamic insurance ($m = 2.61$; $SD = 1.42$) and awareness of Islamic insurance principles ($m = 3.08$; $SD = 1.14$), while customers' view about Islamic insurance is more punctual in payment of claim than the conventional insurance is very low ($m = 2.09$; $SD = 1.05$).

Regarding the Islamic insurance transactions uncertain and Islamic insurance operation assurances uncertain, the results show that the uncertainties are minimum ($m = 2.64$; SD $= 0.959$) and ($m = 2.63$; SD $= 0.981$), respectively.

Customer's perception regarding Islamic insurance in the three countries consisting of Malaysia, Sudan, and Bahrain. Malaysian customers consider value consideration ($m = 4.40, 4.14$ and 3.48; SD $= 0.728, 1.47$ and 1.88), combination of both religious and value consideration ($m = 4.48, 4.22$ and 3.50; SD $= 0.762, 1.12$ and 1.21), and other reason ($3.41, 2.56$ and 1.78; SD $= 1.00, 0.512$ and 0.620) better than customers from Sudan and Bahrain.

Similarly, customers in Malaysia have better information dissemination mechanism effective enough to facilitate decision making by the customer ($m = 3.56, 3.22$ and 1.80; SD $= 0.837, 1.26$ and 0.758); Islamic insurance products subscribed to effectively meet satisfactions ($m = 3.76, 2.64$ and 1.92; SD $= 0.797, 1.24$ and 0.730); Islamic insurance company that discloses appropriate information on the management of policyholders' fund ($m = 3.58, 2.56$ and 2.08; SD $= 0.859, 1.20$ and 0.797); awareness of most of Islamic insurance transaction ($m = 3.56, 2.56$ and 1.63; SD $= 1.18, 1.48$ and 0.897); basic knowledge about Islamic insurance ($m = 3.48, 2,64$, and 1.50; SD $= 0.995, 1.60$ and 0.847); and awareness of Islamic insurance principles ($m = 3.52, 3.11$ and 2.50; SD $= 1.05, 1.28$ and 0.992) than their counterparts in Sudan and Bahrain.

Moreover, customers in Malaysia also perceive that Islamic insurance is more punctual in payment of claim than the conventional insurance ($m = 3.28, 3.08$ and 2.30; SD $= 0.858, 1.10$ and 0.992), Islamic insurance transactions uncertain ($m = 2.80$; 2.58 and 2.50; SD $= 0.904, 0.996$ and 0.987), and Islamic insurance operation assurances uncertain ($m = 2. 78$ and 2.25; SD $= 0.910$ and 1.070). While the results show that customers in Bahrain have high religious consideration than in Malaysia and Sudan ($m = 4.61, 4.36$ and 3.53; SD $= 0.803, 0.921$ and 1.74), the overall results indicate that Malaysian customers have better awareness and information regarding Islamic insurer more than customers from other countries.

A one-way multivariate analysis of variance (ANOVA) was conducted to test the significant differences in the application of insurance principles among Islamic insurance companies in three countries (Sudan, Malaysia, and Bahrain). A statistically significant ANOVA effect was obtained, Pillai's Trace $= 0.581 F (119.000, 240.000) = 9.827$, $p < 0.05$. The multivariate effect size was estimated at 0.29 which implies that 29 % of the variance in the dependent variable (the application of insurance policies) was accounted for by the differences in business operation in each country.

A series of one-way ANOVAs on each of the five dependent variables was conducted as follow-up tests to the MANOVA. As can be seen in Table 47.2, three out of five ANOVAs were statistically significant. We can see from this table that countries have statistically significant effect on application of right to subrogation (right of Islamic insurer to claim from the third party) ($F (2, 35.115) = 27.055$; $p < 0.05$; partial $\eta^2 = 0.31$), proximate cause (dominant cause identified and attributed as the cause of the loss) ($F (2, 35.638) = 20.638$; $p < 0.05$; partial $\eta^2 = 0.25$), and contribution apportion of claim among the Islamic insurers of the same interest

Table 47.2 Multivariate analysis of variance (MANOVA)

Multivariate tests[a]

Effect		Value	F	Error df	Sig.	Partial eta squared	Noncent. parameter	Observed power[b]
Intercept	Pillai's trace	0.962	5.992E2[c]	119.000	0.000	0.962	2995.854	1.000
	Wilks' lambda	0.038	5.992E2[c]	119.000	0.000	0.962	2995.854	1.000
	Hotelling's trace	25.175	5.992E2[c]	119.000	0.000	0.962	2995.854	1.000
	Roy's largest root	25.175	5.992E2[c]	5.000	119.000	0.000	0.962	2995.854
Country	Pillai's trace	0.581	9.827	10.000	240.000	0.000	0.291	98.268
	Wilks' lambda	0.425	12.710[c]	10.000	238.000	0.000	0.348	127.102
	Hotelling's trace	1.339	15.804	10.000	236.000	0.000	0.401	158.036
	Roy's largest root	1.329	31.890[d]	5.000	120.000	0.000	0.571	159.450

								1.000
								1.000
								1.000
								1.000

[a]Design: intercept + country
[b]Computed using alpha = 0.05
[c]Exact statistic
[d]The statistic is an upper bound on F that yields a lower bound on the significance level

($F_{(2, 23.681)} = 11.681$; $p < 0.05$; partial $\eta^2 = 0.16$). What can be deduced from the results of these analyses is that Islamic insurance companies in these three countries view, apply, and operate differently when it comes to the adoption and usage of these three fundamental conventional insurance principles.

A. Results of Islamic Insurer's Respondents

The results show that Islamic insurance demonstrates Islamic features with existence of two separate funds, shareholders' and policyholders' fund ($m = 4.54$; SD $= 0.690$); presence of *Shari'ah* governance committee ($m = 4.63$; SD $= 0.667$); pooling of contribution by the participants ($m = 4.25$; SD $= 0.971$); investing in *Shari'ah* compliant assets ($m = 4.54$; SD $= 0.529$); distribution of the surplus to participants ($m = 4.30$; SD $= 1.02$); underwriting claim that is stated clearly in the contract ($m = 4.36$; SD $= 0.862$); and policyholders who know clearly the amount of charges and expenses deducted from the contribution ($m = 3.36$; SD $= 1.49$).

The results also indicate that the policyholder recommends to the board how the surplus from the policyholders' fund is to be allocated ($m = 3.23$; SD $= 1.62$) and *Shari'ah* committee recommends to the board how the surplus from the policyholders' fund is to be allocated ($m = 3.18$; SD $= 1.61$).

Moreover, the results for surplus distribution show that operators allocate surplus to all participants without differentiating between claimable and non-claimable accounts (3.06; SD $= 1.61$), allocate surplus only to those participants who have not made any claims ($m = 2.47$; SD $= 1.46$), allocate surplus only to those participants where the amount of claims is less than the contributions paid ($m = 2.43$; SD $= 1.35$), and others ($m = 3.36$; SD $= 1.35$).

The findings regarding disclosure/transparency show that Islamic insurer disclosure is important or appropriate and important information to the policyholders on the management of policyholders' fund is necessary ($m = 3.93$; SD $= 1.39$), disclose investment methods on accumulated fund ($m = 3.22$; SD $= 1.68$), surplus distribution ($m = 3.15$; SD $= 1.73$), fees charges/commissions ($m = 3.06$; SD $= 1.61$), assembly of policyholder ($m = 3.49$; SD $= 1.56$), and periodic newsletter ($m = 3.40$; SD $= 1.58$). The results further depict the presence of insurance principles consisting of the existence of ownership of insurable items at the time of the claim is highest ($m = 4.13$; SD $= 1.23$), full disclosure of material facts of insurable items ($m = 4.23$; SD $= 1.27$), contribution (apportion of claim among the Islamic insurer of the same interest) ($m = 3.93$; SD $= 1.38$), proximate cause (dominant cause identified and attributed as the cause of the loss) ($m = 3.27$; SD $= 1.61$), and right to subrogation (right of Islamic insurer to claim from the third party ($m = 2.85$; SD $= 1.32$).

In terms of investment, the results show that Islamic insurers engage in profit sharing from investment ($m = 3.52$; SD $= 1.63$), management fees from investment profit only ($m = 2.81$; SD $= 1.43$), and others ($m = 3.69$; SD $= 1.36$), and the results

for the driver of performance comprise of income from investment ($m = 2.68$; $SD = 1.44$) and income from underwriting surplus ($m = 2.24$; $SD = 1.22$), while the results for the method to mitigate against participation indicate an increase of the contribution rate ($m = 3.51$; $SD = 1.20$), reduce overdue contribution ($m = 2.99$; $SD = 1.34$), and no claim discount given to enable renewal of certificate ($m = 2.78$; $SD = 1.43$).

In terms of *Shari'ah* compliant product, the findings indicate four existing products comprising of *Wakala* model ($m = 2.33$; $SD = 1.31$), *Mudharabah* model ($m = 4.02$; $SD = 1.17$), Hybrid model (*Mudharabah* with *Wakala*) ($m = 3.19$; $SD = 1.52$), and *Waqaf* model ($m = 3.19$; $SD = 1.52$).

The results for the type of revenue practice show that the Islamic insurers derive revenue from commission and charges from participants' contributions ($m = 3.42$; $SD = 1.49$), profit sharing from investment ($m = 3.87$; $SD = 1.24$), sharing from underwriting surplus ($m = 2.62$; $SD = 1.46$), management fees from investment profit only ($m = 3.48$; $SD = 1.36$), performance fees from underwriting surplus only ($m = 2.52$; $SD = 1.27$), and others ($m = 3.42$; $SD = 0.881$).

Finally, the results also depict that there is agreement to develop standard processes for *Shari'ah* compliance, audit, and review of the *Shari'ah* rulings ($m = 4.35$; $SD = 0.883$) and to have Islamic insurance model globally as best practiced ($m = 3.90$; $SD = 1.01$).

B. Results of **Shari'ah** *Board Respondents*

The descriptive statistics for *Shari'ah* board members' viewpoint regarding Islamic insurance after conducting descriptive statistic analysis for experts. In Malaysia, the *Shari'ah* board members' views show that Islamic insurance features are pooling of contribution by the participants (4.50, 4.31 and 4.37; $SD = 0.827$, 0.947 and 1.06), the distribution of the surplus to participants ($m = 4.50$, 4.31, and 4.37; $SD = 0.761$, 1.31 and 1.06), and underwriting claim is stated clearly in the contract ($m = 4.65$, 4.46 and 4.37; $SD = 0.587$, 1.19 and 0.744).

In terms of factors in deciding the amount of *tabarru* paid by policyholder, Malaysia *Shari'ah* board considers by market forces (competition) ($m = 4.35$, 4.00, 3.08; $SD = 0.587$, 0.000 and 0.760) and by benchmark on others ($m = 4.20$, 3.63 and 1.62; $SD = 0.523$, 0.518 and 1.04).

As regards to the insurance principles existing in Malaysian Islamic insurers, *Shari'ah* board members' opinions indicate the presence of full disclosure of material facts of insurable items ($m = 4.55$, 4.50 and 1.23; $SD = 0.605$, 0.535 and 1.23), proximate cause (dominant cause identified and attributed as the cause of the loss) ($m = 4.25$, 4.25 and 1.46; $SD = 0.786$, 0.707 and 0.877), and contribution (apportion of claim among the Islamic insurer of the same interest) ($m = 4.10$, 3.87 and 2.31; $SD = 0.788$, 0.641 and 1.18).

In terms of the most *Shari'ah* compliant model, Bahrain considers *Mudharabah* model ($m = 4.38$ and 3.55; $SD = 1.35$ and 0.821), and *Shari'ah* board members of Bahrain agreed to develop standard processes on *Shari'ah* compliance, audit, and

review on *Shari'ah* rulings ($m = 4.86$ and 4.70; SD $= 0.378$ and 0.571) and to have Islamic insurance model globally as best practiced ($m = 5.13$ and 4.37; SD $= 4.88$ and 0.761).

C. Results of Experts' Respondents

Meanwhile the experts view on the Islamic insurance in the three countries. The Islamic insurance experts in Malaysia support Islamic features that comprise of pooling of contribution by the participants ($m = 4.30$, 3.65 and 3.50; SD $= 0.823$, 1.05 and 1.35), distribution of the surplus to participants ($m = 3.40$, 3.39 and 3.10; SD $= 0.843$, 1.33 and 1.10), underwriting claim that is stated clearly in the contract ($m = 3.80$, 3.67 and 3.60; SD $= 1.03$, 0.970 and 0.966), policyholders who know clearly the amount of charges and expenses deducted from the contribution ($m = 3.80$, 2.40 and 1.83; SD $= 0.919$, 0.843 and 1.29), statistical (historical) data ($m = 3.50$, 3.40 and 3.28; SD $= 0.850$, 0.516 and 1.27), by benchmark on others ($m = 3.30$, 3.10 and 1.67; SD $= 0.483$, 0.738 and 1.28), percentage commission charges ($m = 3.70$, 2.65 and 2.50; SD $= 0.823$, 1.43 and 1.41), and *Shari'ah* committee who recommends to the board ($m = 3.40$ and 1.20; SD $= 1.17$ and 0.422).

In Bahrain, the experts identify the features of Islamic insurances that consist of existence of two separate funds, shareholders' and policyholders' fund ($m = 4.40$, 4.20 and 3.94; SD $= 0.843$, 0.789 and 0.873); presence of *Shari'ah* governance committee ($m = 4.90$, 4.60 and 4.11; SD $= 0.316$, 0.516 and 0.758); and investing in *Shari'ah* compliant assets ($m = 4.70$, 4.60 and 3.89; SD $= 0.675$, 0.699 and 0.832). The experts also affirm the practice in which policyholders know how the operators manage policyholders' fund ($m = 3.60$, 3.40 and 2.39; SD $= 1.57$, 1.57 and 1.03).

Regarding the conditions for the validity of contract, the experts in Bahrain recommend full disclosure of material facts of insurable items ($m = 4.50$, 4.10 and 3.89; SD $= 0.527$, 0.568 and 1.32), while *Mudharabah* model ($m = 4.30$, 3.20 and 2.33; SD $= 0.483$, 1.16 and 1.00) is the most *Shari'ah* compliant product then Hybrid model (*Mudharabah* with *wakala*) ($m = 4.20$, 4.10 and 2.89; SD $= 0.422$, 0.568 and 1.26).

Based on the outcome of our findings, a great proportion of the respondents agree that ownership of insurable interest is largely applied by Islamic insurance companies in Sudan. Precisely, about 40 % (40.5 %) of the respondents agreed that principle of ownership of insurance items is most *Shari'ah* compliant, while about 35 % (34.5 %) held that it is very compliant. In the same vein, 3.6 % showed their preference. Only 10.7 % agreed that the principle is least compliant, and another 10.7 % believed it is moderate compliant. Above all, it can be seen that in Sudan, the principle of ownership of insurable items is considered by most experts, *Shari'ah* board members, as well as operators as being *Shari'ah* compliant.

In Bahrain, the opinions of the respondents are almost similar with those reported in Sudan. While 58 % showed that the principle is most compliant, 42.3 % indicated the principle of ownership of insurable items as adopted in by

Islamic insurance companies is very compliant. So, only about 4 % (3.8 %) of the population held that it is preferred. This thus suggests that great large respondents maintain that the principles as adopted by the Islamic insurance companies are Mustahab or Mandub (preference). No respondents supported least and moderate compliance as an option for the adoption of the principle.

The overall results for the three countries show that narrowing the gap and differences between the current models practiced through various analytical procedures and processes using descriptive analysis is a must. The findings reveal changes in insurance principles, similarities in the models practiced, contain justification in terms of features such as operator fees general harmonization of the models.

47.5   Conclusion

The findings show that insurance principles are satisfactorily being practiced, and Bahrain is the leading country in all dimensions. Similarly, in terms of *Shari'ah* rules and guidelines, the Islamic insurers practice adequately but the countries differ, indicating that each has a specific aspects of *Shari'ah* rules and guidelines that are adequately applied ahead of others. However, the countries are similar in some aspect of operation and differ in others as in the case of Sudan, Malaysia, and Bahrain, but the differences are much higher than the similarities. In addition, the Islamic insurers have their own ways of justifying their models, and the findings indicate that there are sufficient methods of justifying the models. Meanwhile, in terms of the common model, Hybrid appears to be widely acceptable and its application is high in all countries; thus, it could be a common model. Finally, there are unanimous agreements regarding the possibility of harmonization the models in order to create a common model for the industry.

The study revealed interesting findings regarding the insurance principles being used by Islamic insurance in the major player of Islamic insurance industry. The finding of the study will be of significant value in addressing issues raised during the world conference on Takaful held in Dubai in 2012 in which it has been reported that a number of Islamic insurance are being practiced in the form of different models and are both *Shari'ah* compliant indicating that their regulatory frameworks are based on *Shari'ah* principles and guidelines. However, within the Islamic insurance models being practiced, there are differences that could be identified. Similarly, differences also exist among countries that practice Islamic insurance and even players that practice the same models. The study will actively bridge the existing gap as it identifies the common models and way through which Islamic insurance can harmonize their activities and services for greater efficiency. It is widely believed that Islamic insurance players concentrated in Bahrain, Malaysia, and Sudan, and Islamic insurance practices are being implemented in these countries, and the regulatory frameworks put in place in these countries assist in developing Islamic insurance practice and service (Islamic Research & Training

Institute Islamic Development Bank). The significant growth of the Islamic insurance industry over the past decade has been achieved as a result of the genuine need for the Islamic insurance concept and products and the dedication of several individuals and companies. Over the past 35 years, Islamic insurance in Sudan has proved itself as a genuine solution to provide an acceptable *Shari'ah* compliant alternative to conventional insurance.

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Chapter 48
Bank Fragility and Its Determinants: Evidence From Malaysian Commercial Banks

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Abstract   When are banks considered fragile and what triggers them to be fragile? This paper attempts to answer those questions by measuring bank fragility and identifying probable factors determining bank fragility of Malaysian commercial banking sector during the period of 1996–2011. This paper constructs the banking sector fragility index (BSFI) to measure fragility of commercial bank during the period studied. The index is then used to identify the determinants of commercial bank fragility. Results of BSFI show that the commercial banking sectors are in fragile condition from 1996 until 2000 and in a highly fragile stage between 1996 and 1998 since the BSFI are less than -0.50. In addition, findings based on the logistic regression analysis infer that the likelihood of Malaysian commercial banks to be fragile is significantly determined by total loans to total assets and interbank rate.

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48.1   Introduction

The banking sector plays an important role as financial intermediary and is a primary source of financing for the domestic economy. Generally, a bank is known as a financial firm that offers loan and deposit products on the market and caters to the changing liquidity needs of its borrowers and depositors. Banks serve three important functions: as an intermediary, liquidity providers, and payment servicer. These functions differentiate them from other financial institutions. On the other hand, the quest for profit remained as the principal objective of their existence similar to the other business. Hence, exposure to various types of risk will be detrimental to their profits. Eventually, it could increase their vulnerability to crisis and make them fragile. In this study, banking fragility is simply defined as vulnerability to crisis [1] that eventually could lead to serious breakdown in market functioning such as disruption in financial intermediation, credit crunch or lack of financing for new investment, and consumption activities. It may also reduce the level of confidence among local and foreign investors in financial sector. BSFI is an index used to monitor the level of fragility among Malaysian domestic commercial banks [2]. The main components of BSFI are associated with three excessive risk factors (credit risk, liquidity risk, and foreign-exchange risk) [3]. However, BSFI in this research uses market risk as suggested by [4] as one of the factors that affect the value of banks assets and liabilities in place of foreign-exchange risk. The fluctuation of all the indicators used in this research to compute BSFI is expected to explain the changes in the level of fragility in banking sector.

Banks play important role in the macroeconomy with regard to monetary policy as highlighted in Keynesian theory. Additionally, asymmetric information, bank run, adverse selection, and moral hazard are the most common reasons that heighten the riskiness of bank fragility within banking sector [5]. Bank Negara Malaysia (BNM) defines financial stability as the condition in which the financial system comprising financial intermediaries, markets, and market infrastructures must be capable of withstanding shock arising from the risk associated with it. In other point of view, financial stability promotes confidence in the financial system. Banking fragility is closely identified as an unfavorable condition that could influence financial instability within banking sector (vulnerability to crisis). This may cause serious breakdown in market functioning such as disruption in financial intermediation, credit crunch or lack of financing for new investment, and consumption activities as well as reduce the level of confidence among local and foreign investors in financial sector. In order to ensure financial stability, in particular the banking sector, Malaysia used guideline of CAMELS framework or three-pillar Basel accord consisting of Basel I, II, and III. Most of the previous studies have used CAMELS to detect the fragility of the bank condition. However, [2] proposed banking sector fragility index (BSFI) to identify the sign of banking fragility as this index is able to identify different levels of fragility. Besides, at the point this study is carried out, there is no study that has used BSFI to measure the bank fragility in Malaysia. Hence, this study aims to fill up this gap by constructing the BSFI to

detect the level of bank fragility within Malaysian commercial banks over the period of 1996–2011. In addition, this paper also integrates both macroeconomic and bank-specific factors to unearth the determinants of fragility of Malaysian commercial banking sector.

48.2   Review of Literature

A. Fragility Indices

Past literatures have developed several fragility indices for banking system based on the indicators of fragility of individual banks [6]. The index is believed to be able to predict the future bank crisis, whether crisis has occurred or the probability of it occurring could be determined via fragility index [7]. Eichengreen et al. [8] developed speculative pressure index (SPI) and index of currency market turbulence (ICMT) to detect currency crisis, while [9] constructed banking sector fragility index (BSFI) and excessive risk index (ERI) for banking crisis [9].

B. Bank-Specific Factors

Micro-version of this framework will focus on individual bank's balance sheet data to forecast banks fragility. The selected financial ratios are based on CAMELS framework that stands for capital adequacy, asset quality, management soundness, earnings and profitability, as well as liquidity and sensitivity to market risk [2]. The application of financial ratios as the proxies for the bank-specific provides information about the symptoms rather than the causes of financial difficulty as they provide leading indicators of incipient crisis [10]. As indicated and revealed from previous studies, failed banks had significantly lower capital ratio than those of non-failed banks [11], asset quality shows the risk level of assets and rate of financial strength within a bank [12], and ratio of deposit interest to total expenses as proxy for banks management is positively related to possibility of bank failure [13]. Banks earning that is proxied by return on assets (ROA) is associated with strong and healthy banks, which should decrease due to banks failure [14]. The liquidity level for every bank represents the capability of the banks to fulfill its respective obligation [15]. Higher liquidity level indicates that the bank is not in a fragile situation. It is found that larger banks have competitive advantages and due to fiercer competition, the larger banks will push smaller banks to take higher risks. This situation could explain why bank size will influence the probability of failure [16].

C. Macroeconomic Factors as Determinants

Macroeconomics is a branch of economic dealing with the performance, structure, behavior, and decision making of the whole economy. It is actually one of the two most general fields in economics, which involves the sum total of economic activity dealing with the issues of growth, inflation, and exchange rate. The fluctuation of economic trend could affect the banking sector performance. Higher GDP growth will ensure the banking sector development in harsh condition and from being fragile [17]. Gunsel [18] in their studies reported that higher interbank rate will lead to fragility of banking sector.

48.3   Conceptual Framework

In an attempt to analyze Malaysian commercial banking fragility, seven domestic commercial banks have been selected after taking into consideration the availability and consistency of data. The final list of banks selected is shown in Table 48.1.

The independent variables identified for this paper consist of bank-specific factors and macroeconomic factors (refer to Table 48.2). These factors are considered as potential leading indicators of banks failure [19].

Based on analysis and review of previous empirical studies, this paper, therefore, develops the following conceptual framework as display in Fig. 48.1.

48.4   Methodology

The research methodology starts with the construction of bank sector fragility index for individual bank. Table 48.3 presents the three risks that are associated with the calculation of BSF index. BSF index is calculated as an average of standardized value of NPL, DEP, and TIER, where μ and σ stand for the arithmetic average and standard deviation of these variables, respectively.

Table 48.1 Malaysian domestic commercial banks

No.	Type of bank
1	Affin Bank Bhd
2	Alliance Bank Malaysia Bhd
3	CIMB Bank Bhd
4	Hong Leong Bank Bhd
5	Malayan Banking Bhd
6	Public Bank Bhd
7	RHB Bank Bhd

Source: Bank Negara Website

Table 48.2 Proxies for bank fragility determinants

Variable/proxy	Measurement	Expected result to BSFI
Bank-specific variables:		
Capital adequacy	Capital assets ratio (CAR)	+
Asset quality	Total loans to total assets (TL/TA)	−
Management quality	Deposit interest expenses to total expenses (DIE/TE)	−
Earning ability	Net income as a percentage of total assets (ROA)	+
Liquidity	Loans/customer deposits (TL/TD)	−
Sensitivity to market risk	Size (SZ)	+
Macroeconomic variables:		
Interest rate	Malaysian interbank rate	−
GDP	Malaysian GDP growth rate (% change in GDP)	−/+

Banking Sector Fragility Index (BSFI)

1= Bank is fragile (BSFI< 0)
0 = Bank is not fragile (BSFI>0)

Bank Specific Variables
1. Capital Adequacy
2. Asset Quality
3. Management
4. Earning
5. Liability
6. Sensitivity to market risk

Macroeconomics Variable
1. GDP
2. Interbank Rate
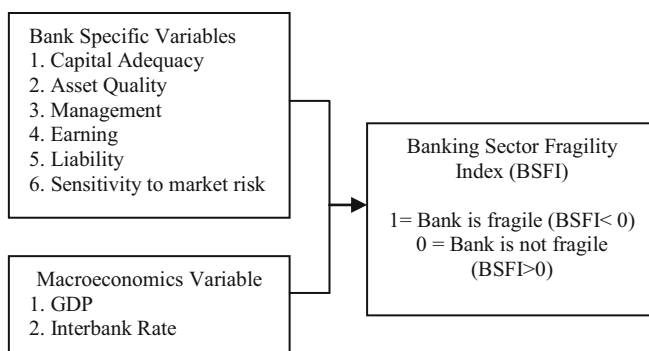
Fig. 48.1 Conceptual framework of bank fragility determinants

Table 48.3 Construction variables for BSF index

Economic risks	Proxy	Data source
Credit risk	Bank credit on private sector (NPL)	Bankscope (2012)
The liquidity risk	Bank real total deposit (DEP)	Bankscope (2012)
Market risk	Bank financial leverage, time interest earned ratio (TIER)	Bankscope (2012)

The formula for the computation of BSFI is shown in Eq. (48.1). Different levels of bank fragility are determined as follows:

(a) Not fragile, if $BSFI \geq 0$
(b) Moderately fragile, if $0 \leq BSFI \leq -0.5$ and $-0.5 \leq BSFI < 0$
(c) Highly fragile, if $BSFI < -0.5$

Equations (48.2), (48.3), and (48.4) show the calculation of credit risks (NPL$_t$), liquidity risks (DEP$_t$), and market risk (TIER$_t$), respectively. This paper uses annual data instead of using monthly data to avoid from the risk of deriving misleading interpretations toward fragility because of incoherent monthly data for selected variable [19].

$$\text{BSFI}_t = \frac{\left((\text{NPL}_t - \mu_{\text{n pl}})/\sigma_{\text{n pl}}\right) + \left((\text{DEP}_t - \mu_{\text{de p}})\sigma_{\text{de p}}\right) + \left((\text{TIER}_t - \mu_{\text{tier}})/\sigma_{\text{tier}}\right)}{3}$$
(48.1)

$$\text{NPL}_t = ((\text{TNPL}_t - \text{TNPL}_{t-1})/\text{TNPL}_{t-1})NPL_t$$
$$= \left[\left(\frac{\text{TNPL}_t - \text{TNPL}_{t-1}}{\text{TNPL}_{t-1}}\right)\right]$$
(48.2)

$$\text{DEP}_t = ((\text{TDEP}_t - \text{TDEPL}_{t-1})/\text{TDEP}_{t-1})\text{NPL}_t$$
$$= \left[\left(\frac{\text{TNPL}_t - \text{TNPL}_{t-1}}{\text{TNPL}_{t-1}}\right)\right])$$
(48.3)

$$\text{DER}_t = ((\text{TIER}_t - \text{TIER}_{t-1})/\text{TIER}_{t-1})$$
(48.4)

$$\text{DEP}_t = \left[\left(\frac{\text{TDEP}_t - \text{TDEP}_{t-1}}{\text{TDEP}_{t-1}}\right)\right] \quad \text{DER}_t = \left[\left(\frac{\text{TIER}_t - \text{TIER}_{t-1}}{\text{TTIER}_{t-1}}\right)\right]$$

Once the level of banks fragility for individual bank is identified, this paper then uses the logistic regression model to determine the bank-specific and macroeconomics factors that are likely to cause bank fragility. Based on the constructed BSFI, the dependent variable is assigned a binary value that equals to one if BSFI is <0 and zero if BSFI is ≥0. The logistic regression is shown in Eq. (48.5) and the expectation-prediction evaluation by Eq. (48.6).

$$Y_{it}^* = \Omega_1 + \sum_{k=1.2.3...k} \Omega_2 \text{Bank specific}_{kit} + \sum_{k=1.2.3...k} \Omega_4 \text{Macroeconomic}_{kit} + u_{it}$$
(48.5)

$$\text{Log}\left(\frac{P_i}{1-P_i}\right) = \beta_0 + \sum_{j=1}^{k} \beta_j X_{itj}$$
(48.6)

48.5 Findings

The results of BSFI show that the trend of fragility in Malaysian domestic commercial banks was in sequence with the event that occurred (Fig. 48.2).

The constructed BSFI revealed that the commercial banking sectors are in fragile condition from 1996 until 2000. They were particularly in a highly fragile stage between 1996 and 1998 since the BSFI is less than −0.50. This is not surprising because during that period, Malaysia financial institution was badly hit by the Asian financial crisis. The value of index was in a positive value in 2001 and
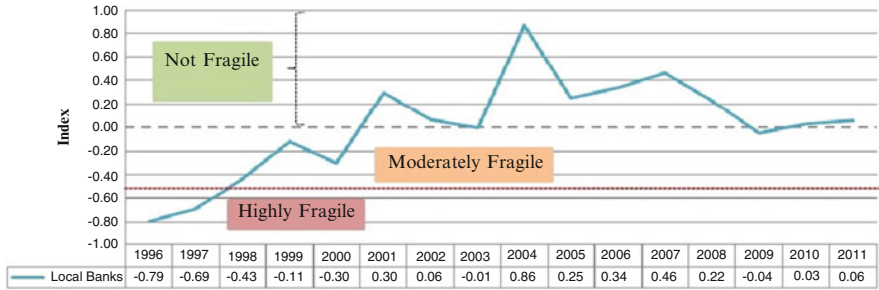
Fig. 48.2 Trend of average banking sector fragility index

2002 before entering into slightly moderate fragile state in 2003. However, a year later in 2004, the commercial banking sector was not in the fragile zone where the highest BSFI of 0.86 points was recorded and was persistently above the zero level. However in 2009, the commercial banks entered into another fragile condition when the BSFI was at −0.04 points. Between the year 2007 and 2008, the world was affected by the global financial crisis that led to the collapse of several large financial institutions. Fortunately, Malaysia financial institutions were not badly hit by it. The index rebounded back to positive value and maintains the positive value until 2011. Findings from this study proved that the measurement of BSFI given by previous studies like [2, 3, 9] is a relevant approach in predicting bank fragility (Table 48.4).

Based on results of the estimated logistic model (Table 48.2), the most significant bank-specific and macroeconomic factors (at 5 % significance level) that influence the likelihood for bank fragility are asset quality (TL/TA) and interbank rate (IR). TL/TA shows a negative coefficient implying that a 1 % increase in TL/TA led to the probability of bank being fragile reduces by about 0.81 %. The finding concurs with the studies of [8, 9, 13]. On the other hand, the interest rate (IR) has a positive coefficient, which indicates that at 1 % increase in IR, the probability of bank being fragile increases by about 2.25 %. Gunsel [18] also reported similar relationship in their studies. They found that liquidity flow into the banking sector is affected when interbank rate increased and eventually led to fragility condition. Both liquidity (TL/TD) and GDP have positive relationship with BSFI but are statistically significant at 10 % level.

Based on the expectation-prediction evaluation Table 48.5, total prediction on bank is fragile and not fragile was correct at 75.24 % and only 24.76 % was incorrect. The overall model evaluation of the logistic regression shows that the model is well specified. The p-value for the Hosmer and Lemeshow test statistics is 0.4254 which indicates that the null hypothesis that there is no difference between the observed and predicted values is not rejected. MacFadden R-squared statistics (0.34) as well as the p-value of LR statistics that is statistically significant at 1 % level also supported that the model is a good fit to the data.

Table 48.4 Results of estimated logistic regression model

| Variable | Logistic regression results of commercial banks | | | | |
	Coeff.	Std. Error	Z-Stat	Prob.	Exp(B)
Constant	99.2889	27.2811	3.6394	0.0003[a]	
CAR	−0.1234	0.1537	−0.8029	0.4220	0.8839
TL/TA	−0.1260	30.2866	−3.9958	0.0001[a]	0.8057
DIE/TE	−3.6322	3.8075	−0.9539	0.3401	0.0265
ROA	−0.3130	0.4199	−0.7455	0.4559	0.7312
TL/TD	3.3473	1.8993	1.7623	0.0780[b]	28.4259
SZ	−0.3139	0.3566	−0.8801	0.3788	0.7306
IR	0.8120	0.2653	3.0607	0.0022[a]	2.2524
GDP	0.1662	0.0904	1.8386	0.0660[b]	1.1808
Summary statistics for logistic regression					
Include observation	112				
Obs with Dep = 0	57				
Obs with Dep = 1	48				
McFadden R-squared	0.34				
LR statistics	50.0256 (0.0000)[a]				
Hosmer-Lemeshow statistics	8.0834				
Prob. chi-square	(0.4254)				

[a]Significance at 1 % level
[b]Significance at 10 % and

Table 48.5 Expectation-prediction evaluation

	Dep = 0 (%)	Dep = 1 (%)	Total (%)
% correct	78.95	70.83	75.24
% incorrect	21.05	29.17	24.76

48.6   Conclusion

Banking and financial sector is crucial for country development. It acts as an intermediary to allocate funds and control the level of liquidity of a country. However, banking and financial sector is faced with challenges to deal with the risks exposure during their business operations. Therefore, this research works on the determinants of bank fragility. Firstly, the nonparametric banking sector fragility index (BSFI) is developed to measure individual banks' fragility level. We tried to link the risks associated with bank failure to measure bank fragility in term of index based.

The results obtained from the constructed BSFI are in tandem with the crisis events occurred in Malaysia for the period 1996–2011. Next, this study runs a logistic regression to identify determinants that are likely to cause bank fragility in Malaysian banking sector during 1996–2011. Empirical evidence reveals interesting results for the Malaysian banking sector. It appears that TL/TA and IR variables are the likelihood factors of bank fragility. The results indicate that the sign of fragility is determined by both bank-specific and economic factors. There are several suggestions for future research related to this study.

Firstly, further research can be carried out by computing and comparing other indices such as speculative pressure index (SPI), index of currency market turbulence (ICMT), and excessive risk index (ERI) to test for the robustness of the indices. Secondly, researcher can also incorporate other independent variables that could be the factors for bank fragility. Lastly, other statistical methodology can be employed to investigate the causal relationship of bank fragility.

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Chapter 49
Indirect Financial Distress Costs: Evidence from Trading and Services Sector

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Abstract The aim of this paper is to provide a quantitative estimate of the indirect financial distress costs. This paper focuses on the Malaysian trading and services sector and concentrates only on measuring the financial distress costs in terms of changes in operating performance and changes in capital values. This study will contribute to the existing literature by providing an alternative proxy for indirect financial distress costs and perhaps the first paper to provide the quantitative estimate of the costs for Malaysia's financially distressed firms. Findings from our study suggest that indirect costs exist and are found to be between 3.1 and 21.39 %. In addition to that, this paper also provides an empirical support that the indirect financial distress costs increase and become apparent as the firms near financial distress.

Keywords Financial distress • Indirect costs • Firm value • Capital discount

49.1 Introduction

Indirect costs of financial distress, which are considered as opportunity costs [1], refer to the costs suffered by a firm as a consequence of its weakening financial position [2] or a disruption of 'business as usual' [3]. These costs may be viewed in two ways: (a) changes in the operational performance [2, 4–9] and (b) changes in the value of the companies [10–13]. Even though the theoretical debate about financial distress costs is entrenched in the study of capital structure [14], the potential contribution of the study goes beyond capital structure literature. Financial distress costs were found to be a relevant factor for many financing decisions [15], such as in determining the optimal capital structure [16], demand for

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conventional and Islamic insurance [17], corporate hedging practices [18, 19] and trade receivables policy [20]. This is further supported by the recent study conducted by [21]. Their study found that 88 % of Malaysian managers indicate that the potential costs of bankruptcy or financial distress are strongly influencing their decision in determining the appropriate amount of corporate debt for their firms.

Despite the above-mentioned importance of this topic, there are relatively few studies measuring the size and analysing the determinants of indirect costs [22, 23]. One of the possible reasons for the lack of research on the indirect financial distress cost is due to its opportunity cost nature and the difficulty in specifying and empirically measuring such costs [3, 5, 24].

To the best of our knowledge, there was no study conducted for Malaysia's financially distressed companies, contributing to the nonexistence of financial distress cost data for Malaysia [25]. Several authors have used other variables as a proxy for indirect financial distress costs. The examples are [17, 26] those who use working-capital-to-total-assets ratio, long-term debt ratio, interest coverage ratio and [27] liquidity (ratio of quick assets to total current assets) as the proxy for the indirect financial distress costs. The financial distress costs data that is unique and specific to Malaysia's legal and listing requirement is very important because the existence and significance of the financial distress costs depend on the market setting [1]. Hence, the empirical findings from other countries cannot be generalised to Malaysia. Our study is therefore aiming to fill this gap. The main contribution of this paper is that it provides an alternative, more accurate indicator of the indirect financial distress costs that allows the researcher to examine the real effect of indirect financial distress costs on financial policies such as hedging and capital structure policies of Malaysian firms.

49.2   Literature Review

A. *Past Studies on Indirect Financial Distress Costs*

The reference by [4] was the first paper who highlights the need for estimating the indirect costs of financial distress [28]. In his research, bankruptcy costs are measured in two ways: (a) as profit losses (the difference between foregone sales and actual earnings) and (b) abnormal losses (resulting from the difference between estimated and actual earnings). His findings suggest that, on average, the indirect costs of financial distress are equal to 10.5 % and up to 20.8 % (abnormal losses) of the company's value. Even though Altman [4] is considered the pioneer in this area, there are several limitations in this research, as highlighted by Chen [29]. First, as the sample is small, the results should not be considered as conclusive. Second, as pointed by Altman [4] himself, the indirect costs should not just be limited to

companies, which actually fail; firms with high probabilities of failure, whether they eventually fail or not, still incur costs.

In the same year, Titman [30] provides a theoretical argument that the firm's liquidation decision imposes costs on nonfinancial stakeholders of the company. For example, customers of a company that manufacture a unique product may have to bear the increased costs of maintenance, employees may have to require new skills at a cost, and suppliers may have to incur expenses to adapt their facilities to manufacture other products if the company goes out of business. In response, customers will pay less for the products, labour will demand higher compensation, and suppliers will charge more for supplies if a company has a higher probability of being liquidated. Ultimately, companies will bear these expected liquidation costs along with the costs of conflicting interests of bondholders and stockholders.

Another important early study on this topic is done by Cutler and Summers [11]. They exploit a lawsuit between Texaco and Pennzoil to separate these costs and conclude that the ex ante costs of financial distress are around 9 % of Texaco's value. They argue that the significant part of the wealth loss can be attributed to the effect of the lengthy dispute on Texaco's long-term viability, making it difficult for the company to obtain credit and distracting Texaco's management from their duties. However, similar to Altman [4], the sample used in this research is too specialised and small; hence, the findings cannot be easily generalised. Following Altman [4], Cutler and Summers [11], and Titman [30], several other studies have attempted to quantify the magnitude of the indirect financial distress costs, each using quite distinct methodologies and data sets. These includes the work by Bisogno and De Luca [9], Singhal [13], Tshitangano [22], Andrade and Kaplan [24], Almeida and Philippon [31], Bris et al. [32], Carapeto [33], Denis and Denis [34], Eberhart et al. [35], Farooq and Nazir [36], Gilson et al. [37], Pham and Chow [38], Pulvino [39], Yen and Li [40], Yen and Yen [41], and Shleifer and Vishny [42].

However, despite decades of research, there is no common consensus on the scale of the indirect financial distress costs. The review of the available theoretical and empirical evidence suggests that there are both costs and benefits associated with financial distress [13]. This lack of agreement is largely driven by the very heterogenous techniques used to identify and quantify the financial distress costs [9]. Therefore, this paper attempts to provide more insights into the understanding of this topic by investigating and presenting the empirical evidence on the magnitude of the indirect financial distress costs of Malaysia's financially distressed firms.

49.3   Methodology

A. *Population, Sample and Data Collection Procedures*

The target population for the research was all the companies from the trading and services sector listed as financially distressed by Bursa Malaysia under the requirement of PN4, PN17 and amended PN17, respectively, from 15 February 2001 when PN4 was introduced until 31 December 2011. As of 31 December 2011, there are 48 companies listed as affected issuers under the requirement of PN4, PN17 and amended PN17.

In order to highlight the trends of the selected measures of financial distress costs, following [9], the estimation period is designated as 5 years prior to the event period. The years relative to the financial distress date are defined as years t-5, t-4, t-3, t-2 and t-1, where t-5 represents 5 years before the company is classified as one of the financially distressed companies, while t-4, t-3, t-2 and t-1 represent 4 years, 3 years, 2 years and 1 year before the financial distress.

B. *Measurement of Indirect Financial Distress Costs*

The literature provides two ways of measuring the indirect financial distress costs, which are by looking at the changes in the operating performance and at the changes in the value of the companies [8, 10, 11]. This paper quantifies the indirect financial distress cost in terms of both changes in operating performance (opportunity costs, industry-adjusted EBITDA/sales and industry-adjusted EBITDA/assets) and in capital values (capital discount sales assets).

The first measure of operating performance is expressed in terms of opportunity costs [22, 36, 43]. It is calculated as the difference between the firm's sales growth and sector's sales growth. A positive answer will demonstrate that the firm bears opportunity costs and underperforms compared to its sector. As for the second and third measure of operating performance, this paper follows [13] and measures the changes in the operating performance relative to the sector by calculating the industry-adjusted EBITDA to sales (and assets).

Changes in equity values are estimated in terms of capital discount. The value of the companies is calculated as the difference between the firm's estimated value and actual value. The following Table 49.1 below presents the methods for calculating the indirect financial distress costs.

Table 49.1   Variable description and calculation

Variable	Description and calculation
Opportunity costs (OC)	$[(\text{Sales}_{it}/\text{Sales}_{it-1})*100]_{\text{Sector}} - [(\text{Sales}_{it}/\text{Sales}_{it-1})*100]_{\text{Firm}}$
	where:
	$[(\text{Sales}_{it}/\text{Sales}_{it-1})*100]_{\text{Sector}} = $ Sector's sales growth
	$[(\text{Sales}_{it}/\text{Sales}_{it-1})*100]_{\text{Firm}} = $ Firm's sales growth
Median industry-adjusted EBITDA/sales (IAES)	$E/S_f - E/S_I$
	where:
	$E/S_f = $ EBITDA/Sales for firm f
	$E/S_I = $ Median EBITDA/Sales for firm industry
Median industry-adjusted EBITDA/assets (IAEA)	$E/A_f - E/A_I$
	where:
	$E/A_f = $ EBITDA/Assets for firm f
	$E/A_I = $ Median EBITDA/Assets for firm industry
Capital discount (sales)	$[(\text{Estimated Value} - \text{Actual Value})/\text{Estimated Value}]*100$
	where:
	Actual value = market value of common equity plus the book value of debt
	Estimated value = $X_f * (v/x_i)$
	$X_f = $ sales for firm f
	$V/X_f = $ median total capital to sales ratio for industry i
Capital discount (assets)	$[(\text{Estimated Value} - \text{Actual Value})/\text{Estimated Value}]*100$
	Actual value = market value of common equity plus the book value of debt
	Estimated value = $X_f * (v/x_i)$
	$X_f = $ assets for firm f
	$V/X_f = $ median total-capital-to-assets ratio for industry i

49.4   Empirical Findings and Discussions

A. Descriptive Statistics

The descriptive statistics as presented in Table 49.2 below provides information on selected characteristics of sample firms for 5 years preceding the classification as financially distressed. It is interesting to note that, for the whole period of the study, all three variables have recorded a very low mean as compared to the sector and become smaller as firms get closer to financial distress. This scenario may be caused by the reluctance on the part of the customers and suppliers in doing business with financially distressed customers and the lack of management attention on the business itself (because of financial problems) [9].

Table 49.2 Descriptive statistics

	t-1	t-2	t-3	t-4	t-5	Sector
Panel A: sales						
Mean	162.92	185.5	195.99	231.24	224.64	1039.01
Median	146.36	167.25	145	153.74	162.62	176.21
SD	151.49	142.51	167.4	241.45	222.88	3067.5
Panel B: total assets						
Mean	396.39	446	483.14	587.53	689.18	2382.1
Median	226.45	267.09	255.9	264.11	214.89	297.52
SD	433.92	466.94	509.26	690.65	894.26	7366
Panel C: EBITDA						
Mean	1.03	1.75	−8.24	0.25	27.05	242.41
Median	−1.48	1.06	−0.31	1.52	13.97	22.37
SD	35.06	76.91	59.72	65.4	48.69	869.48

B. Estimation of Indirect Financial Distress Costs

The main objective of this study was to provide empirical evidence on the size of the indirect financial distress costs to the firms under investigations. This section considers the quantitative estimate of the costs of financial distress in terms of changes in operating performance and changes in capital values:

1. *Operating Performance*: Table 49.3 shows the values of the indirect costs that were estimated in terms of changes in operating performance. Three measures that were used to estimate the costs were the opportunity costs (panel A), industry-adjusted EBITDA over sales (panel B) and industry-adjusted EBITDA over total assets (panel C).

   The sales growth rate, which was measured as the difference between the sales growth of the sector and the firm's sales growth, indicates that the size of the costs for the whole period of the study is about 10.21 % (SD = 66.01). As expected, the size of this cost increased from only −1.50 % (t-5) to 24.91 % (t-1) as it comes closer to financial distress. These results are comparable to Tshitangano [22] and Farooq and Nazir [36], who found that the financially distressed firms bear mean 12 % sales losses with respect to the industry. Therefore, it is likely that the impact of annual increase in the indirect costs contributes to the firm's eventual classification as affected issuers.

   As opposed to CFD based on opportunity costs, panels B and C (Table 49.3) offer a different perspective. For the whole period of study, both IAES and IAEA show that the firms are performing better than the industry. For the whole study period, the mean for industry-adjusted EBITDA/sales and industry-adjusted EBITDA/assets is −3.1 (SD = 120.83) and −10.66 (SD = 21.80), respectively.
2. *Capital Values*: As described earlier, capital value losses for the sample firms are calculated using the actual market value (defined as the market value plus the book value of debt) and estimated value using the [44] multiplier approach for

Table 49.3 Indirect financial distress costs (operating performance)

	t-1	t-2	t-3	t-4	t-5	t-5 to t-1
Panel A (opportunity costs)						
Mean	24.91	1.86	16.29	−4.82	−1.5	10.21
Median	26.65	20.07	19.74	13.7	5.59	15.34
SD	34.94	80.63	41.7	114.01	52.76	66.01
Panel B (industry-adjusted EBITDA/sales)						
Mean	−81.36	−23.07	−35.9	−18.37	−7.25	−3.1
Median	−15.36	−11.46	−14.25	12.29	-3.77	−7.3
SD	244.73	52.32	78.43	35.56	39.39	120.83
Panel C (industry-adjusted EBITDA/total assets)						
Mean	−15.36	−11.07	−13.14	−8.91	−4.81	−10.66
Median	−9.19	−7	−8.86	−7.8	3.57	−15.27
SD	25.73	15.32	19.85	9.91	8.02	21.80

sales and assets. A positive answer for changes in capital values will demonstrate that firms are trading at a discount and shows that the sample firms experience losses in capital value. Table 49.4 presents the actual value, estimated capital values (sales), estimated capital values (total assets), capital discount (sales) and capital discount (total assets) for the sample firms during the study period.

As shown in panel A and B, the mean of the actual and estimated values is much larger than the median capital values, indicating that the capital values are skewed. Declines in the actual and estimated values are observed as the sample firms near financial distress. For example, the estimated capital value (sales) during the t-5 is 259.88 million (SD = 217.08) and drops to 182.53 million (SD = 175.14) in t-1. Similar patterns can be observed for actual value (panel C). For the whole period of the study (t-5 to t-1), the mean for actual value is 383.65 million (SD = 499.71) and recorded a drop by almost 100 %, between t-5 (mean = 524.65 million) and t-1 (mean = 262.49 million). The decrease in the estimated values (sales and total assets) and actual values is expected because the operating performance of the sample firm deteriorates as it nears financial distress.

Panels D and E provide the capital discount based on the [44] estimates. The discounts in capital values are estimated as estimated market values minus actual values divided by estimated market values. As opposed to the above, where the capital values (sales and assets) and actual values are moving in the same direction (declining), the capital discounts offer a different perspective. From capital discount (sales) point of view, except for t-1, the sample firms seem to be trading at a premium and perform better than the sector. This is consistent with the statement by Wruck [45] that 'financial distress often accompanied by comprehensive organizational changes in management, governance and structure. This organizational restructuring can create value by improving the use of resources' (see [45], p.420).

The capital discount (assets), on the other hand, shows that the sample firms experience losses in capital's value. By the end of the fiscal years prior to financial

Table 49.4 Indirect financial distress costs (capital values)

	t-1	t-2	t-3	t-4	t-5	Sector
Panel A: estimated capital value (sales)						
Mean	182.53	209.56	221.13	265.14	259.88	1331.29
Median	158.93	177.95	158.5	184.41	188.37	226.86
SD	175.14	164.22	399.98	274.75	253.79	3918.6
Panel B: estimated capital value (assets)						
Mean	325.85	358.95	389.08	477.08	560.38	1937.72
Median	185.69	216.91	203.17	219.43	180.87	241.68
SD	355.11	381.69	416.04	561.22	726.2	5995.58
Panel C: actual value						
Mean	262.49	314.56	355.43	461.11	524.65	1898.81
Median	81.12	172.15	158.5	205.74	186.25	223.03
SD	348.73	384.82	399.98	573.4	681.35	5839
Panel D: capital discount (sales)						
Mean	100.91	−31.4	−63.18	−60.9	−60.4	4.07
Median	−3.78	−16.58	−30.5	−40.25	−37.54	0.05
SD	77.05	119.11	137.49	115.3	123.93	86.01
Panel E: capital discount (assets)						
Mean	40.73	27.98	17.91	9.92	10.39	5.93
Median	26.45	16.92	7.3	5.67	6.13	0.15
SD	77.05	52.89	35.18	21.75	22.85	30.21

distress, the sample firms are trading at a discount about 40.73 %. One of the possible explanations for this is asset fire sales [34, 42], where the firms, especially those experiencing financial distress, are forced to sell their assets below the expected market price.

49.5 Conclusion

This paper has examined the indirect financial distress costs for 48 financially distressed firms from the trading and services sector. The mean indirect costs is 10.21 % (SD = 66.01), −3.1 % (SD = 120.83), −10.66 % (SD = 21.80), 4.07 % (SD = 86.01) and 5.93 % (SD = 30.21) for opportunity costs, median-adjusted EBITDA/sales, median-adjusted EBITDA/assets, capital discount (sales) and capital discount (assets), respectively. It is important to note that the capital discount (sales) shows that the firms under investigation are operating at a premium and perform better than the sector. The evidence also provides further confirmation of the pattern of the indirect costs. All proxies for indirect financial distress costs, with the exception IAES and IAEA, increase and become apparent as the firms near financial distress. Although this paper provides empirical evidence, a number of areas need to be refined with future empirical research. This study focuses only on

trading and services sectors and concentrates only on the quantitative estimates of the costs. Future research might want to include other sectors and consider other techniques or models to estimate the costs.

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Chapter 50
Determinants of Indirect Financial Distress Costs

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Abstract This paper examines the impact of firm-specific factors on the size of indirect financial distress costs for Malaysia's financially distressed firms. The results provide an insight into the magnitude of the indirect financial distress costs and its determinants and perhaps are one of the first to provide empirical evidence on the determinants of indirect financial distress costs for Malaysia's financially distressed firms. The results show that the average indirect financial distress cost measured by capital discount is 0.56 % and varies considerably among firms. It also suggests that only two variables, assets intangibility and size, are statistically significant at the .01 significance level.

Keywords Financial distress • Indirect costs • Firm value • Capital discount

50.1 Introduction

The research on financial distress is divided into two major categories. The first category focuses on forecasting financial distress. The main objective of this research is to detect and keep a lookout in advance before the financial distress takes place. The second category of research is concerned with measuring and understanding the financial distress costs. This study belongs to the latter category, with the main objective is to present further evidence on the determinants of the indirect financial distress costs.

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Current literature related to the influencing factors affecting financial distress costs is very scattered. The issue of the causes and consequences of financial distress costs has often been overshadowed by the capital structure puzzle, which has led to a weak development of any specific theory on the determinants of financial distress costs. It was not until the 1990s that scholars began to develop explanatory models that were no longer limited to the study of bankrupt firms [1]. Several studies (see, e.g., [1–4]) have examined the variation in firms' financial distress costs to determine which of the variables are significant in influencing the magnitude of financial distress costs. In this paper, we argue that the determinants of financial distress costs would be different due to its unique firm-specific characteristics. The study on the determinants of financial distress costs that is specific to Malaysia's legal and listing requirement is very important because the existence and significance of the financial distress costs depend on the market setting [5]; hence, empirical findings from other countries cannot be generalized to Malaysia. Furthermore, the robustness of the findings of the previous studies needs to be examined against evidences from other countries such as Malaysia. The main contribution of this paper is that it is perhaps one of the first attempts to empirically investigate the determinants of indirect financial distress costs for Malaysia's financially distressed companies.

50.2 Theoretical Framework and Hypothesis Development

A. Determinants of Indirect Financial Distress Costs and Hypothesis

1. *Leverage*: Leverage continues to be one of the most important explanatory variables in explaining financial distress costs. There are, however, opposing arguments for either positive or negative relation between leverage and financial distress costs. In an argument which began with the seminal work of [6 and 7], it has been suggested that there is a positive relationship between leverage and financial distress costs. Reference [8] gives evidence that there is a positive relationship between financial structure and firm performance in industry downturns. They reveal that more highly leveraged companies tend to lose market share and experience lower operating profits than do their competitors in industry downturns. This indirectly suggests a positive relationship between leverage and loss of market shares since one measurement of financial distress costs is by calculating the changes in corporate performance. References [9 and 10] offer a different perspective of the problem, in which not only the costs but also the potential benefits of debt for financial distress processes are considered, implying that the benefits of leverage will reduce financial distress costs. Thus, this paper argues that there is an ambiguous relationship between leverage and indirect financial distress costs.

Hypothesis 1: There is a significant positive/negative relationship between leverage and indirect financial distress costs.

2. *Size*: In theory, small firms have a bigger problem in assessing capital because of the asymmetric information between insiders and outsiders. The difficulties become severe when the possibility of liquidation arises. However, managing large firms during the period of financial distress may be costly since its more complicated internal organizations require implicit contracts which may be difficult to enforce during difficult times [11]. Bigger size may represent higher level and more complex conflicts of interest, making it more difficult for the claimants to agree over resolving the distress. Moreover, bigger firms may positively relate to larger number of creditors and bigger bank loans received by distressed firms. Given the possibility of higher conflicts in distress resolution as the number of creditors increases, the following hypothesis is tested:

Hypothesis 2: There is a significant positive relationship between size and the indirect financial distress costs.

3. *Intangible Assets*: Companies with high asset intangibility usually have values in trademark, expertise, patents, rights, brand names, good reputations, and services after sales. In addition to that, the products of these companies will usually be priced relatively higher. That is, customers have to pay higher prices for products or services provided by high intangible asset companies. However, when high intangible asset companies experience severe financial distress, their customers will have higher losses since they lose not only the promised after-sale-service but also the products' name, reputation, and status, for which the customers have already paid when they bought the products. As a result of financial distress, customers of high asset intangibility will become more hesitant to buy its products. Therefore, it is common belief that when a firm is in financial distress, the more intangible the firm's assets, the higher the sales loss. Following the above discussion, the following hypothesis will be tested:

Hypothesis 3: There is a significant positive relationship between intangible assets and indirect financial distress costs.

4. *Time in Distress*: Previous studies suggest that time in distress has a positive association with the costs of financial distress [e.g., see 9, 12, 13]. The basic argument is that time in distress relates to the costs of financial distress because the claimants might expand the company's resources over time. The quicker the problems of a distressed firm are resolved, the better will be the value of the firm. A similar theory suggests that bargaining and coordination problems may slow down the restructuring process [14, 15].

However, reference [16] argues that under well-functioning market, with a large number of buyers, price takers, and rational sellers and creditors, claimants' bargains are nearly costless in a competitive market; therefore, the overall firm value is not affected. References [2 and 12] also show no significant effect of firm

value or lost growth opportunities on the time in default. Hence, given the issues presented above, the following hypothesis will be tested:

Hypothesis 4: There is a significant positive relationship between time in distress and indirect financial distress costs.

5. *Tangible Assets*: Financial contracts are strongly influenced by the degree to which a company's assets support the transactions, with some form of collateral normally being essential to gaining access to credit. Thus, the proportion of tangible fixed assets in total company assets is a measure of the capacity to provide collateral and consequently obtain (re)financing. Nevertheless, these assets suffer a big loss of value when small companies go into distress because they will often negotiate in adverse market conditions. Reference [17] points out that in recessions many potential buyers of a company's assets only buy when there is a big discount. Thus, sellers of a distressed company try to postpone transactions until markets become more liquid. Therefore, the higher the percentage of tangible fixed assets over the total assets, the smaller will be the incentive for the different stakeholders to push the firm into bankruptcy. As a result, this research posits the fifth hypothesis as:

Hypothesis 5: There is a significant negative relationship between tangible assets and indirect financial distress costs.

6. *Holding of Liquid Assets*: The cash component of the assets is utilized by the firm to assist them in mitigating the effect of financial distress. Reference [1] finds that the holding of liquid assets are negatively related to the costs of financial distress, which implies that insolvent firms can take advantage of holding larger stocks of this kind of assets. Hence, this paper posits the sixth hypothesis as:

Hypothesis 6: There is a significant positive relationship between liquid assets and indirect financial distress costs.

7. *Change in Investment Policy*: Reference [18] shows that there is a negative relationship between change in investment policy and the size of indirect financial distress costs. This means that the divesture increases the costs of financial distress, and it can be concluded that underinvestment has a stronger effect than overinvestment in financial policy. Hence, this paper posits the seventh hypothesis as: Change in investment policy is negatively related to the indirect financial distress costs.

Hypothesis 7: There is a significant negative relationship between change in investment policy and indirect financial distress costs.

50.3   Sample and Methodology

A. Sample

The target population for the research was all companies from the trading and services sector listed as financially distressed by Bursa Malaysia under the requirement of Practice Notes 4 (PN4), Practice Notes 17 (PN17), and Amended PN17 (APN17), respectively, from 15 February 2001 when PN4 was introduced until 31 December 2011. The list of all affected issuers was obtained from the Media Releases and Companies Announcement from the Bursa Malaysia website from January 2001 to December 2011. The final sample of firms consists of 41 firms that met the criteria of non-missing data of financial distress costs and other variables and therefore sufficient firm-year observations over the period of 5 years before financial distress. The 5-year period choice is somewhat similar to the study by [19]. The annual reports of the selected companies were obtained from the Annual Companies' Handbook (various editions) and the DataStream.

B. Data and Methodology

The main objective of this paper is to examine the determinants of indirect financial distress costs. This paper specifies and estimates the following regression model for all firms:

$$\text{CFD}_{it} = \beta_0 + \beta_1\text{LEV}_{it} + \beta_2\text{SIZE}_{it} + \beta_3\text{INTANG}_{it} + \beta_4\text{TID}_{it}$$
$$+ \beta_5\text{TANG}_{it} + \beta_6\text{LA}_{it} + \beta_7\text{CINV}_{it} + \varepsilon_{it} \qquad (50.1)$$

Following [20], this paper uses capital discount as a proxy for indirect financial distress costs (FDC). Capital discount is estimated as the difference between the firm's estimated value and firm's actual value. The specific firm's estimated capital values are calculated using the asset multipliers approaches of [21]. All the variables are shown in Table 50.1.

Table 50.1 Method of variable calculation

Variables	Formula
CFD	Indirect financial distress costs
	Capital discount = (estimated value − actual value)/(estimated value)
LEV	Total debt/(total debt + total assets)
SIZE	LnSales
INTANG	(Total market value/book value of assets) * 100
TID	Time period in distress (year)
TANG	(Net fixed assets/total assets) * 100
LA	(Cash flow/current assets) * 100
CINV	[Net retained cash/(fixed assets + intangible assets + current assets)]*100

50.4 Results

A. Summary Statistics

Table 50.2 shows the summary statistics (mean, median, standard deviation, minimum and maximum value) of the variables. CFD is the capital discount (assets), a proxy for indirect financial distress costs; LEV, the firm's leverage given in terms of the debt ratio; SIZE, the logarithm of firm's sales; INTANG, the ratio of firm's market value to the book value of assets; TID, time period each company was in financial distress; TANG, ratio of net fixed assets to total assets; LA, the firm's holding of liquid assets expressed by current ratios; and CINV, change in firm's investment policies calculated as the year-on-year change in investment rate, in terms of retained earnings. For the firms in our sample, the average indirect financial distress costs (FDC), which is proxied by capital discount, range from a minimum value of −19.05 to a maximum of 7.34, with a mean and median of 0.56 and 0.72, respectively. This signifies the existence of both the costs and benefits of financial distress costs. The average FDC of 0.56 means the sample firms are trading at a discount of about 0.56 % to capital value using assets, indicating that there really exist relative indirect financial distress costs in Malaysia's financially distressed companies. However, there are big differences from firm to firm, with the highest FDC of 7.34 and the lowest of −19.05, reflecting both cost effect and benefits of financial distress [20]. Similar findings can be found in the research by [3]. The paper suggests that firms experienced value losses in the period before being classified as affected issuers under the requirement of PN4, PN17, and Amended PN17.

Table 50.3 (Panel A and Panel B) presents the result of the Pearson's correlation coefficients among the independent variables. The correlation coefficients between pairs of independent variables are generally low, suggesting that a serious collinearity problem is unlikely. However, the statistically significant correlations between some of the independent variables reported in Table 50.3 raise the possibility of multicollinearity. Therefore, variance inflation factors (VIF) are also computed to test for the presence of multicollinearity. Kennedy (1998) suggests that a VIF of more than 10 indicates harmful collinearity and may warrant further examination, while Tolerance's (defined as 1/VIF) value that is lower than 0.1 is comparable to a VIF of 10.

As shown in Table 50.4, the calculated VIF and 1/VIF are all less than 10 and more than 0.1, respectively, suggesting that multicollinearity does not appear to be a severe problem in this study.

Table 50.2 Descriptive statistics

Variable	N	Mean	SD	Median	Min	Max
CFD	240	0.56	1.88	0.72	−19.05	7.34
LEV	240	98.73	182.51	76.31	−359.65	968.75
SIZE	240	4.72	1.29	5.02	−1.35	7.19
INTANG	240	−9.38	138.00	27.19	−900.15	158.31
TID	240	1.84	1.16	1.50	0.23	5.15
TANG	240	39.34	25.81	32.55	0.37	93.23
LA	240	−0.20	39.29	1.70	−171.81	279.81
CINV	240	345.43	238.48	362.01	8.21	984.69

Table 50.3 Pearson's correlation

Pearson's correlation: Panel A				
	LEV	SIZE	INTANG	TID
LEV	1.0000			
SIZE	0.3499*	1.0000		
INTANG	0.3885*	0.3349*	1.0000	
TID	0.0311	0.1832*	−0.1602*	1.0000
Pearson's correlation: Panel B				
	TID	TANG	LA	CINV
TID	1.0000			
TANG	0.0299	1.0000		
LA	−0.0537	0.0344	1.0000	
CINV	0.0227	−0.2248*	0.1135	1.0000

*Significant at 5 %

Table 50.4 Variance inflation factors (VIF)

Variable	VIF	1/VIF
SIZE	1.55	0.645824
CINV	1.49	0.669179
TID	1.42	0.706255
LEV	1.32	0.758260
TANG	1.14	0.877070
TID	1.11	0.900610
LA	1.02	0.975810
Mean VIF	1.29	

B. Regression Results and Analysis

Table 50.5 presents the regression results from three different specifications of the basic model in equation (1). The results are based on pooled OLS and fixed effect and random effect regression. In this paper, the choice of an appropriate model among pooled OLS or fixed effect or random effect model depends upon three types

Table 50.5 Regression results analysis (dependent variable: indirect financial distress costs)

	OLS	Fixed effects	Random effects
LEV	−0.000180	−0.00114	−0.000902
	(0.805)	(0.112)	(0.181)
SIZE	0.258*	0.858***	0.504***
	(0.021)	(0.000)	(0.000)
INTANG	0.00481***	0.00481***	0.00478***
	(0.000)	(0.000)	(0.000)
TID	−0.0358	−0.062	−0.0801
	(0.734)	(0.714)	(0.612)
TANG	0.00263	0.0111	0.00307
	(0.582)	(0.243)	(0.614)
LA	−0.00240	−0.000461	−0.00165
	(0.421)	(0.859)	(0.521)
CINV	0.000405	0.000635	0.000256
	(0.495)	(0.490)	(0.706)
Constant	−0.865	4.078***	1.836**
	(0.083)	(0.000)	(0.005)
Observations	240	240	240
R^2	0.121	0.209	
Adj. R^2	0.0949	0.0168	
R^2 overall			0.106
R^2 between			0.0485
R^2 within			0.189
F	4.581*	8.177*	

p-values in parentheses
*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

Table 50.6 Panel specification tests

Panel specification test		
Test	Statistics value	P-value
F-test	3.61	0.0000
Breusch-Pagan LM test	39.46	0.0000
Hausman test	14.67	0.0230

of tests as suggested by [22]. The tests are Chow test, Breusch-Pagan LM test, and Hausman test.

Table 50.6 shows the results of the Chow test for a pooled model, the Breusch-Pagan LM test, and the Hausman test. The results of the Chow test for a pooled model vs. the fixed effect model, $F = 3.61$, as being significant at 1 % level, suggest that a heterogenous fixed effect is superior to the pooled model.

The next step is to estimate whether the random effects are preferred to pooled OLS estimation. As Table 50.6 shows, the null hypothesis for the Breusch-Pagan LM test can be rejected, and, hence, it can be documented that the unobservable effects are present. Consequently, random effect model is the most efficient estimator. Meanwhile, the Hausman test for fixed effect vs. random effect model,

$\chi^2 = 14.67$, is significant at 5 % significance level, indicating that the difference between the random effect and fixed effect model is significant, leading to a conclusion that fixed effect model is better than a random effect model. Therefore, the discussion of the determinants of indirect financial distress costs is based on the results of fixed effect model.

The results (based on fixed effect model) suggest that only size and intangibility are significant at the .01 significance level. Consistent with previous literature such as [17 and 23], asset intangibility was found to be significantly and positively related to indirect financial distress costs which means the higher the percentage of intangible assets over the total assets, the higher will be the indirect financial distress costs. Size was found to be positively related to indirect costs, suggesting that the bigger the firm's assets, the higher will be the indirect financial distress costs.

This finding is consistent with [11] who argued that bigger firms represent higher level and more complex conflicts of interest, making it more difficult for the claimants to resolve the conflicts, hence resulting into a higher indirect financial distress costs.

50.5 Conclusion

This paper has examined determinants of the indirect financial distress costs for financially distressed firms from the manufacturing sector of Bursa Malaysia. The results suggest that, on average, the firms are trading at a discount of about 0.56 % to capital value using assets, showing that financial distress surely brings losses to listed firms. The results also suggest that only two explanatory variables, firm's size and asset intangibility, are significant at 1 %. Although this paper provides empirical evidence, a number of areas need to be refined with future empirical research. This study focuses only on trading and services sector and concentrates only on the quantitative estimates of the costs. Future research might want to include other sectors in order to provide better generalization of the results.

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Chapter 51
Assessing of Malaysian Firms' Cross-Border Merger and Acquisition Efficiency

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Abstract The study of mergers and acquisitions is commonly done by many academic researchers in the area of corporate finance and covers a wide range of issues. This paper focuses on assessing Malaysian firms' cross-border merger and acquisition (CBMA) efficiency due to the fact that Malaysian firms have been reported to be aggressively involved in CBMA deals as early as the 1990s. This research aims to assess the true efficiency of Malaysian acquiring firms listed on Bursa Malaysia by using data envelopment analysis (DEA) for the study period 2000–2011. The annual financial data of the firms involved in CBMA and the employment of DEA coupled with the statistical tool will help to evaluate the effectiveness of the firms. It is expected that there is a significant correlation between the chosen input and output factors to the actual DEA score.

Keywords Cross-border mergers and acquisitions • Efficiency • Data envelopment analysis • Malaysia

51.1 Introduction

The terms merger, acquisition, buyout and takeover are part of the merger and acquisition (M&A) jargon. M&A is a process whereby two or more companies are combined into one company. M&A is a fact of business life which is the most popular strategy of growth for firms because it is a quicker, easier and cheaper way for businesses to grow as compared to the organic firm's expansion. Cross-border M&A (CBMA) also plays important roles in international trade, global investment and overseas expansion.

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Malaysia is one of the developing countries that experienced rapid growth which transformed it from an agriculture-based economy to an industrial-based economy. Malaysia has been classified as an advanced emerging market in June 2011 by the FTSE Group as the recognition for the continuous effort and commitment by the government, regulators and market participants to build a high-quality market which will attract more investment from global investors. For decades, Malaysia has been following prudent macroeconomic policies, focusing on low inflation, strong external reserves and current account surpluses. This study focuses on Malaysia as one of the advanced emerging market countries.

Ashok and Shoko [1] explained that CBMA in Asian countries such as Indonesia, Korea, Malaysia and Thailand rose sharply in value from US$3 billion in 1996 to US$22 billion in 1999, before falling slightly to US$18 billion in 2000. In 2004, Japan, China and the ASEAN regions together accounted for 15.9 % of the world's M&A deals and 7.7 % of the world's M&A transaction value [2]. Asian countries are playing important roles in the international trade and global investment and are expected to have the fastest economic growth as compared to other regions in the world. As a result, there will be more CBMA involving the companies from Asian countries in the future.

51.2   Statement of Problems

There are many studies on M&A and efficiency which mainly concentrate on the banking industry, insurance industry and service industry such as hospitals and transportation. Fazlan [3] uses the nonparametric data envelopment analysis (DEA) methodology to study on the effects of mergers and acquisitions on the efficiency of Malaysian banks. Liu et al. [4] use accounting ratios and DEA to explore the efficiency impact of six bank mergers in New Zealand between 1989 and 1998. Ayadi et al. [5] assess the extent of M&A in the European banking sector over the 1996–2003 period. Cummins et al. [6] apply DEA in the US life insurance industry over the period 1988–1995. They examine the relationship between M&A, efficiency and scale economies in terms of estimate cost and revenue efficiency. James [7] investigates the impacts of merger on the efficiency and productivity of public bus services of the Norwegian data covering the period 1995–2002 using DEA and Malmquist productivity index.

To the researcher knowledge, there is no study on CBMA using DEA across different industries because most of the previous researchers focus on one industry as explained above. In Malaysia, most of the studies only concentrate on the banking sector efficiency and productivity such as Fazlan [3] and Hazlina et al. [8]. The purpose of this research is to examine the effects of CBMA on the efficiency of Malaysian acquiring firms. Do CBMA results in better efficiency of Malaysian acquiring firms? The efficiency estimates will be performed using the nonparametric DEA methodology.

Therefore, this study tries to fill the research gap by investigating the CBMA of Malaysian acquiring firms using input and output determinants that have been applied by previous researchers Fazlan [3], Liu et al. [4], Ayadi et al. [5], Cummins et al. [6], James [7], and Hazlina et al. [8].

51.3   Literature Review

There are numerous researches on M&A using DEA to measure efficiency. In this section, the researcher has included few examples of previous studies on M&A and DEA method especially in the service industries such as banking and insurance. Most of the studies concentrate on cost and revenue efficiency, technical efficiency and operation efficiency.

Fazlan [3] employs the nonparametric frontier approach for M&A of the Malaysian banking industry. He analyses the domestic Malaysian commercial banks pre- and post-merger period by using the technical and scale efficiency. He found out that the M&A programme was successful especially for the small- and medium-sized banks by taking advantage of economies of scale but for larger banks the result was contrary. He found that Malaysian banks have demonstrated a creditable overall efficiency level of 95.9 % with minimal input waste of 4.1 % during 1998–2003. This result was aligned with Hazlina et al. [8] that found out that the total productivity factor of the nine banks in Malaysia increased by 10.1 % after the banks' M&A programme. They also found that the M&A has stabilised the banks' return and that the technological change is the primary factor of the productivity increase. Both of these studies give an important insinuation such as guiding the government policy regarding the deregulation of mergers. Decision-makers have to be more cautious in promoting M&A as a means to enjoy efficiency gains.

Liu et al. [4] espouse the method used by Avkiran [9] to explore the efficiency cost and benefit effect of six bank mergers in New Zealand between 1989 and 1998. They employ the accounting ratio and DEA and discover that the acquiring banks were found to be generally larger than their target, although they were not consistently more efficient. In most cases, the authors reported that efficiency increases after the merger exercise that is in tandem with other studies.

Ayadi et al. [5] try to substantiate whether there is an increase in technical efficiency and better cost management of the European banking industry M&A over the period 1996–2003. The results support that merged banks have improved in their productivity effectiveness by means of a catching-up effect indicator. They conclude that M&A operations in the European banking industry appeared to be basically motivated by an objective of improving complementarities among lines of work from each component of M&As rather than to increase productivity at the merged bank level.

Cummins et al. [6] utilise the estimation of the cost and revenue efficiency in order to examine the relationship between mergers and acquisitions, efficiency and scale economies in the US life insurance industry over the period 1988–1995. They

find that acquired firms achieve greater efficiency gains than firms that have not been involved in M&A. Firms operating with nondecreasing returns to scale and financially vulnerable firms are more likely to be acquisition targets. Overall, mergers and acquisitions in the life insurance industry have had a beneficial effect on efficiency.

James [7] finds that the post-merger process led to productivity efficiency improvement in the bus industry as the merged firms are taking advantage of their economies of scale. Contrary, the non-merger firms have to become more technically innovative in order to be competitive. These results are an asset to the less-explored field of the impact of mergers in transportation.

Avkiran [9] uses DEA to study the operation efficiencies, employee productivity, profit performance and average relative of Australian trading banks from 1986 to 1995. The result from the merger cases adds credence to the reports of others that acquiring banks are more efficient than target banks. There is mixed evidence on the extent to which the benefits of efficiency gains are passed on to the public. The cases also support the proposition that change in market share and change in overall operating efficiency are positively correlated.

Young et al. [10] stated that the failure of intracompany mergers of affiliate banks and intercompany mergers and acquisitions accounts for the disappearance of more than 4,000 bank charters since 1987. The process of consolidations is beneficial if it drives inefficient bank organisations from the market and if it facilitates increased efficiency in the banking organisations that survive. They consider the findings reported in previous studies and present results from their new research in an attempt to determine the impact of consolidation on banking industry efficiency. Their findings suggest that failed banks are significantly less efficient than their peers 5–6 years prior to failure and that this performance differential often becomes evident before the appearance of major loan quality problems. Consistent with previous evidence, new evidence drawn from an event study indicates that intracompany consolidation is likely to have small but significantly positive impact on holding company efficiency and profitability. Finally, both new and existing studies on intercompany banks mergers find that many of these transactions have the potential for efficiency gains that is not systematically exploited post-merger and as a result suggest a non-efficiency motivation for bank mergers. They suggest that efficiency is a useful indicator of a bank's competitive viability and that intra- and intercompany mergers afford opportunities for banking companies to enhance their efficiency.

There are inconclusive findings on mergers and acquisitions that promote or enhance the efficiency by previous researchers as discussed in this section.

51.4   Research Methodology

From Sect. 3 of this paper, the researchers have discovered that previous researchers are using DEA to measure efficiency in M&A. Most of them are focusing on cost and revenue efficiency, technical efficiency and operation efficiency in the service industries. Therefore, the researcher would like to employ DEA in this paper. Instead of concentrating in the service industries which have been done by previous researchers, the researcher would use DEA across different industries in Malaysian CBMA.

DEA is a method that is commonly used to empirically gauge production efficiency of decision-making units. The most famous publication on theory, methodology, application and software of DEA is introduced by Charnes et al. [11] and Cooper et al. [12]. DEA is referred to nonparametric operations research and economics for the production estimation frontier. A nonparametric method does not assume a specific functional form or shape for the frontier; however, this method does not establish the general relationship between output and input.

The microeconomic production theory proposed that the input and output of the firms can be observed through the use of production function. Using such a function, one can show the maximum output which can be achieved with any possible combination of inputs; that is, one can construct a production technology frontier [13]. Even though DEA is strongly associated with the production theory in economics, it is also used in operations management or cost benchmarking in the servicing and manufacturing industries. Cook et al. [14] have defined DEA as not only a form of production frontier but rather a lead to the best-practice frontier.

The main advantage to this method is its ability to accommodate a multiplicity of inputs and outputs. It is also useful because it takes into consideration returns to scale in calculating efficiency, allowing for the concept of increasing or decreasing efficiency based on size and output levels.

The sample comprises 285 transactions of CBMA throughout 2000–2011. From 285 CBMAs, only 130 transactions are considered as the final sample in this study that exceeds the limitation set in this research. The complete annual financial data from each firm is obtained. The data are categorised as financial output and financial input for DEA scoring.

The inputs are, namely, total capital, total asset and total liabilities. Meanwhile, the outputs are total revenue, total net income and total cash. Table 51.1 shows the list of input and output. This research follows the method designed by Yuri et al. [15].

Table 51.1 List of input and output

Input	Output
Total capital – all stocks, reserve and capital investment	Total revenue – total revenues and sales
Total asset – all current and fixed assets	Total net income – after deducting all expenses, interest and tax
Total liabilities – long-term and short-term debts	Total cash – cash and cash equivalents

51.5 Conclusion

Previous studies found that the DEA is the best method to measure efficiency in M&A. Many studies that have been done by researchers especially in the banking industry show equivocal result, but most of the results support that M&A enhances the efficiency. In this study, the researchers are considering a nonparametric frontier approach, data envelopment analysis. Instead of taking consideration of one industry, the researchers take all the Malaysian acquiring firms across the industries listed on Bursa Malaysia that are involved in the cross-border mergers and acquisitions throughout 2000–2011. This paper attempts to explore and examine the efficiency by using DEA towards cross-border mergers and acquisitions of Malaysian acquiring firms which is rarely done by other researchers. Findings from this study can contribute to the body of the existing literature on CBMA and DEA particularly on Malaysian perspective for future researchers.

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Chapter 52
Nonlinear Relationship Between Debt and Firm Value in Malaysian Firms

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Abstract This paper examines the nonlinear relationship between debt and firm value in Malaysia. The issue of dynamic endogeneity in the determinant of the relationship between debt and firm value is also investigated in this paper. Based on the sample consisting of 367 Malaysian firms listed on Bursa Malaysia for the period of 2007–2012, the study fails to find evidence on the nonlinearity between debt and firm value. It concludes that dynamic endogeneity does not influence the relationship between debt and firm value in the Malaysian firms.

Keywords Nonlinearity • Debt • Firm value • Dynamic • Endogeneity

52.1 Introduction

The significance of capital structure to firm performance and its value has been highlighted by various theories over the decades. Among the most significant one is the theory *by* Modigliani and Miller (MM) who came up with the MM theory which stated that the company's capital structure has nothing to do with the company's market value without regard to corporate income tax and business risk. The standard trade-off theory reports that taxes and bankruptcy account for the corporate use of debt. On the other hand, in the standard pecking order theory, adverse selection accounts for the corporate use of debt financing. The free cash flow theory

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says that dangerously high debt levels will increase the value, despite the threat of financial distress. Moving from there, the objective of this paper is to investigate the nonlinear relationship between debt and the firm value based on the sample of nonfinancial corporations in Malaysia.

52.2 Literature Review

There are mixed evidences on the relationships between debt and firm values. Some studies found that there exists a positive relationship and some demonstrate a negative relationship between debt and firm value which is associated with leverage, ownership structure, type of firms, and investment behavior. There is evidence as in [1] that the impact of debt financing varies for different types of enterprises, and [2] report that real estate companies relies more on debt financing. They found that short-term debt financing was negatively related to firm market value as real estate companies' short-term debt financing reduces the company's market value.

Although many studies provide evidence of positive relationship between debt and firm value, some of them have demonstrated and supported the hypothesis that there is a negative relationship between debt and firm value which are associated with leverage, ownership structure, type of firms, and investment behavior. Some literatures build upon trade-off theories of optimal capital structure, which explain that the firm's choice of leverage reveals nonlinear relationship between debt and firm value. There exists negative relationship between firm value and both leverage and dividend payments in the presence of growth opportunities [3]. On the contrary, this relationship turns out to be positive when firms have no profitable investment projects and the higher volatility has a negative impact on growth for small firms and a positive impact for larger firms [4]. There is heterogeneity in the determinants of growth across firms from different sectors and across firms with a different legal status as evidenced by [5, 6] that there exists a "threshold" debt ratio which causes there to be asymmetrical relationships between debt ratio and firm value, revealing that additional debt beyond the threshold level does not add to a firm's value.

It is found by [7] that financial leverage measured by short-term debt to total assets (STDTA) and total debt to total assets (TDTA) has a significantly negative relationship with the firm performance. On the other hand, [8] reveals by using cross-sectional regression that there is no evidence of any significant relationship between return on equity and the debt equity ratio and dividend. On the other note, [9] finds that growth opportunities play key role on the variation of debt structure for leverage, and although unsecured debt has a direct negative effect on leverage, this effect is strongly mitigated for high-growth firms.

In association with corporate behavior and growth opportunities, the importance of knowledge of how firms' capital structure is determined by understanding several aspects of corporate behavior and performance [10], and there exists a nonlinearity relation between firms' leverage and its determinants. Other study [11] finds a negative relationship between debt financing and investment behavior

in both firms with low-growth opportunities and high-growth opportunities and that this negative effect was significantly stronger for firms with low-growth opportunities than those with high-growth opportunities. And there is also evidence on the non-monotonic relationship between future growth opportunities and bank borrowing [12].

52.3   Data and Methodology

A. Data

This study uses data that consists of all listed firms on Bursa Malaysia for the period of 2007–2012 obtained from OSIRIS, Thomson ONE Banker, the Bursa Malaysia website, and the firms' websites. In accordance with the usual practice, firms in the financial sector are excluded from the study, as well as foreign firms that may have different ownership structures. After excluding the missing observations of the dependent and independent variables, the final sample comprises 367 firms for tests.

The dependent variable of this study is firm value and the proxy used is Tobin's Q (Q), which is measured by the sum of year-end market capitalization and book value of total debt and book value of preferred shares scaled by book value of total assets. As for the independent variable, debt (D), this study uses the debt ratio as the proxy measured by book value of total debt scaled by book value of total assets. Debt might have a positive effect on firm value if it serves as a disciplinary device in mitigating ownership concentration's expropriation on small shareholders. As such, debt can also play a role as an effective monitoring mechanism [13]. On the other hand, if debt is seen to increase the agency cost of debt, it will result in a negative effect on firm value [14].

Several control variables are used in the tests as suggested in the literature that firm value is influenced by:

1. Board characteristics: Three characteristics are used: (a) board independence (*IND*) measured by the proportion of outside members in board, (b) CEO duality (*DUAL*) that takes 0 if the CEO is also the board chairman and 1 otherwise, and (c) managerial ownership (*MANOWN*) estimated by the percentage of shares owned by the executive directors. The hypotheses for board independence and managerial ownership are these two variables have a positive effect on firm value while the CEO duality has a negative effect.
2. Ownership concentration: We use the total percentage of ordinary shares owned by a firm's largest shareholder (*OC1*) and the largest five shareholders (*OC5*). Ownership concentration might have dual effects on firm value, either serving as an effective monitoring mechanism on managers [14, 15] or tending to expropriate on small shareholders [16]. The former will result in a positive effect on firm value, while the latter will have a negative impact.

3. Investment (*INV*): Investment may represent the production capability of a firm. Hence, investors might anticipate good future prospects for the firm, thus enhancing firm value [17]. It is estimated by the capital expenditure scaled by book value of total assets.
4. Firm size (*SI*): Size might negatively affect firm value as, if size is too large, there is a possibility that the firm has a high agency cost and difficulties in monitoring, which would reduce firm value. This hypothesis follows [18]. To control for this effect, we use natural log of book value of total assets.
5. Firm age (*AGE*): Age is expected to have a negative effect on firm value, as young firms are seen to have better growth prospects [19]. This study uses natural log of number of years since the firm's incorporation to control for firm age.
6. Growth opportunities (*GROWTH*): It is estimated by the current value of sales less lagged value of sales scaled by lagged value of sales. The hypothesis is growth opportunities positively affect firm value.
7. Change in asset turnover (*AT*): Firm value can be positively influenced by change in asset turnover as a high turnover of assets indicates that the firm is efficient in generating income [20]. It is measured by sales scaled by asset change, where it is defined as current value of sales scaled by book value of total assets less lagged value of sales scaled by book value of total assets.
8. Profitability (*ROA*): Profitability is expected to have a positive effect on firm value. We use return on assets as the proxy estimated by earnings before interest and taxes scaled by book value of total assets.
9. Dividend (*DIV*): This study uses dividend yield to control for this variable. Firm value is expected to be positively influenced by the dividend.

B. Estimation Model

The following equation is estimated in order to test our hypotheses:

$$
\begin{aligned}
Q_{it} = {} & \alpha_0 + \alpha_1 D_{it} + \alpha_2 D_{it}^2 + \alpha_3 D_{it}^3 + \alpha_4 OC_{it} + \alpha_5 IND_{it} \\
& + \alpha_6 DUAL_{it} + \alpha_7 MANOWN_{it} + \alpha_8 INV_{it} + \alpha_9 SI_{it} \\
& + \alpha_{10} AGE_{it} + \alpha_{11} GROWTH_{it} + \alpha_{12} AT_{it} + \alpha_{13} ROA_{it} + \alpha_{14} DIV_{it} + X_{it}
\end{aligned}
$$

$$(52.1)$$

where i and t denote firm and year, respectively. The dependent variable is Q which is Tobin's Q, while the variables of interest are the linear, quadratic, and cubic functions of debt, D, D^2, and D^3, respectively. The board characteristic variables are *IND*, *DUAL*, and *MANOWN* which denote board independence, CEO duality, and managerial ownership, respectively. The following are the control variables: *OC*, *INV*, *SI*, *AGE*, *GROWTH*, *AT*, *ROA*, and *DIV* are ownership concentration, investment, firm size, firm age, growth opportunities, change in asset turnover, profitability, and dividend, respectively. X_{it} is the error term. Firm-specific effects η_i and

time-specific effects ω_t are used to control the unobservable firm specific and time specific, respectively. Hence, the error term X_{it} is transformed into

$$\eta_i + \omega_t + \varepsilon_{it} \tag{52.2}$$

where ε_{it} is the random disturbance. The hypotheses of the independent and control variables are described in the previous section.

C. Estimation Methods

This study uses two types of estimation in order to meet the objectives of the study which is to investigate on the dynamic endogeneity issue. As such, two-way fixed effects (FEs) and two-step system generalized method of moments (GMM) are employed. The former only controls the unobserved heterogeneity across firms and over time, whereas the latter not only controls the unobserved heterogeneity across firms and over time but also the dynamic endogeneity and simultaneity effects. Results of both estimations are compared. If there are consistencies, the interrelationships between variables of interest are not influenced by the dynamic endogeneity issue and vice versa. This method is used in previous studies for instance [21, 17]. To take into account the panel-specific autocorrelation and heteroskedasticity, Huber-White corrected robust standard errors is used in FE estimation, whereas Windmeijer corrected robust standard errors is used in GMM estimation. In addition to the GMM estimation, the instrument set is tested for validity by conducting an analysis based on the Hansen test [22] of the full instrument set and the difference-in-Hansen test of a subset of instruments for overidentifying restrictions ($H_0 =$ valid instruments). As the estimator assumes that there is no serial correlation in the error term, ε_{it}, tests for serial correlation are conducted where the residuals in the first differences (AR1) should be correlated, but in the second differences (AR2), there should be no serial correlation [23].

52.4   Findings and Discussion

A. Descriptive Statistics

Table 52.1 presents the summary statistics of the variables used in this study. Tobin's Q shows a mean value of 0.75 as well as minimum and maximum values of 0.07 and 7.69, respectively. Applying the essential interpretation, the mean of Tobin's Q found in this study indicates that, on average, the market value of the Malaysian firms is 0.75 lower than the value of the firms' total assets.

Table 52.1 Summary of descriptive statistics

	Mean	Std. dev	Minimum	Maximum
Tobin's Q	0.75	0.58	0.07	7.69
Largest shareholder (%)	28.06	16.14	0.42	86.81
Largest five shareholders (%)	53.20	16.58	8.57	99.98
Board independence	0.44	0.13	0.11	0.89
Managerial ownership	12.42	16.57	0	74
CEO duality	0.10	0.30	0	1
Debt ratio	0.23	0.16	0	0.82
Investment	3.88	5.25	0	73.40
Firm actual age	24.48	16.66	1	98
Growth	10.81	50.05	−94.73	776.51
Change in asset turnover	0.78	0.60	0.02	5.53
ROA	0.05	0.09	−0.70	0.75
Dividend	1.84	2.39	0	17.02
Total assets (RM millions)	1,100.97	635.19	1	2,200

As can be seen in the table, the mean value of ownership concentration of the largest shareholder is 28.06 %. This suggests that the largest shareholder of Malaysian firms have a fairly concentrated ownership. Setia-Atmaja [24] defines ownership concentration by categorizing the sample firms as closely held or widely held firms. Firms are categorized as closely held if a firm has at least one shareholder who controls at least 20 % of the firm's equity. In addition, the largest shareholder's ownership concentration also ranges from a minimum of 0.42 % to a maximum of 86.81 %. With regard to the ownership concentration of the largest five shareholders, the mean value is 53.2 %. This verifies that half of the total percentage of shares is already in the largest five shareholders' hands. It also suggests that the largest five shareholders have a fairly concentrated structure of ownership. The minimum and maximum values of the largest five shareholders' ownership concentration are 8.57 % and 99.98 %, respectively.

For the board characteristics, it shows that the mean values of board independence and managerial ownership are 0.44 and 12.42 %, respectively. The results indicate that almost half of the board members are nonexecutive directors and the ownership of the Malaysian firms is not concentrated in the managers' hands. Also, the minimum (maximum) values of board independence and managerial ownership are 0.11 (0.89) and 0 % (74 %), respectively. The mean for the other control variables used in this study are debt ratio 0.22, investment 3.88, firm actual age 24.48, growth 10.81, change in asset turnover 0.78, ROA 0.05, dividend 1.84, and total assets representing firm size 1,100.97.

B. Regression Analysis

In both Tables 52.2 and 52.3, it is found that the coefficients of the linear, quadratic, and cubic functions of the debt ratio when regressed on Tobin's Q are positive, negative, and positive, respectively. This suggests that the debt ratio and Tobin's Q are nonlinearly associated. It indicates that, first, at a low level of debt, firm value increases as debt increases and second, firm value then decreases as debt increases at a high level of debt. Third, firm value increases again as debt increases at its highest level. However, there is no firm evidence that debt is nonlinearly related with firm value, as the linear, quadratic, and cubic functions of the explanatory variable are insignificant. These results are found regardless of using FE estimation or GMM estimation which indicates that the dynamic endogeneity issue does not influence the relationship between debt and firm value.

For the board characteristics, only the managerial ownership is found to be significantly related to firm value in both FE and GMM estimation models. The consistency of the result found indicates that this relationship is not influenced by the dynamic endogeneity issue. The positive relationship between the managerial ownership and firm value suggests that by giving the ownership of the firm to the managers, it aligns the interests of the managers and the shareholders in maximizing their values.

For the other control variables in Table 52.2, it is found that change in asset turnover and return on assets are positively associated with firm value at the 1 % significance level. These indicate that (1) young firms are having better growth prospects while the older firms are not, (2) firms are efficient in generating income, and (3) as been expected, profitability has a positive effect on firm value. In addition, the significantly negative relationship between age and firm value is found at the 1 % level. It indicates that young firms are having better growth prospects as compared to older firms, supporting the hypothesis of a negative association between age and firm value. However, after controlling for the dynamic endogeneity issue, Table 52.3 exhibits that the significance of these variables disappears. These suggest that the dynamic endogeneity issue does influence on the relationship between age, change in asset turnover, and return on assets with firm value. In addition, another control variable which is also found to be influenced by the dynamic endogeneity issue is the size as it is found to be insignificantly related to firm value in Table 52.2 that is using FE estimation and turns to be significant in Table 52.3 when GMM estimation is employed. Nevertheless, the hypothesis of this relationship is not evidenced as a positive association between size and firm value is found, suggesting that larger firms are valued higher by the market and vice versa. This study also suggests that the ownership concentration, board independence, CEO duality, investment, growth, and dividend are not the determinants of firm value.

Table 52.2 FE estimation

Variable	Panel A Q	Panel B Q
D	0.317	0.282
	[0.56]	[0.51]
D^2	−0.287	−0.193
	[−0.16]	[−0.11]
D^3	0.844	0.758
	[0.50]	[0.45]
OC1	−0.001	
	[−0.59]	
OC5		−0.001
		[−1.19]
IND	0.160	0.164
	[1.34]	[1.39]
DUAL	−0.079	−0.078
	[−0.45]	[−0.44]
MANOWN	0.003*	0.003*
	[1.69]	[1.70]
INV	0.001	0.001
	[0.83]	[0.80]
SI	−0.067	−0.066
	[−1.64]	[−1.62]
AGE	−0.32***	−0.32***
	[−3.37]	[−3.36]
GROWTH	−0.000	−0.000
	[−0.54]	[−0.54]
AT	0.194***	0.193***
	[3.63]	[3.62]
ROA	0.756***	0.751***
	[3.56]	[3.53]
DIV	−0.006	−0.006
	[−1.26]	[−1.28]
R-squared	0.15	0.15
F statistics	11.01	10.89
[*P*-value]	[0.00]	[0.00]
Time effects	Included	Included
Firm effects	Included	Included

Model and variables employed are explained in the previous section. All variables on the right-hand side are treated as endogenous variables. Robust t-statistics are presented in parentheses. Constant terms are not reported for convenience. *** and * denote statistical significance at 1 % and 10 % levels, respectively

Table 52.3 GMM estimation

Variable	Panel A Q	Panel B Q
D	1.050	0.991
	[0.80]	[0.69]
D^2	−3.061	−2.828
	[−0.61]	[−0.50]
D^3	3.871	3.642
	[0.75]	[0.63]
OC1	0.005	
	[1.19]	
OC5		0.004
		[0.90]
IND	0.256	0.277
	[0.60]	[0.62]
DUAL	−0.241	−0.282
	[−0.67]	[−0.89]
MANOWN	0.008**	0.009**
	[2.14]	[2.31]
INV	0.005	0.004
	[0.81]	[0.57]
SI	0.134*	0.157**
	[1.91]	[2.27]
AGE	−0.056	−0.051
	[−0.93]	[−0.86]
GROWTH	−0.000	0.000
	[−0.02]	[0.09]
AT	0.153	0.159
	[1.51]	[1.47]
ROA	−0.687	−0.786
	[−1.33]	[−1.41]
DIV	−0.012	−0.008
	[−0.72]	[−0.55]
AR(1)	−1.94	−1.99
[P-value]	[0.05]	[0.05]
AR(2)	−1.34	−1.44
[P-value]	[0.18]	[0.15]
Hansen test	59.66	57.92
[P-value]	[0.49]	[0.55]
Difference-in-Hansen test	44.53	44.32
[P-value]	[0.49]	[0.50]
F statistics	30.54	33.52
[P-value]	[0.00]	[0.00]
Time effects	Included	Included
Firm effects	Included	Included

Model and variables employed are explained in the previous section. All variables on the right-hand side are treated as endogenous variables. Robust t-statistics are presented in parentheses. Constant terms are not reported for convenience. ** and * denote statistical significance at 5 % and 10 % levels, respectively

52.5   Conclusion

The objective reported in this study is to investigate the nonlinear relationship between debt and firm value. Therefore, the study is able to answer the question of whether debt plays a role as an effective disciplinary mechanism in mitigating a type II agency problem between large/controlling shareholders and small/non-controlling shareholders or fails to do so. While undertaking this empirical approach, the study also examines whether the dynamic endogeneity issue is an important determinant of the relationship between debt and firm value in the Malaysian firms.

On the whole, this study fails to find evidence on the nonlinearity between debt and firm value. Hence, it fails to compute on the inflection point of the debt although there is a nonlinearity indication found. The study concludes that dynamic endogeneity is not an issue in influencing the relationship between debt and firm value in the Malaysian firms.

This study contributes to the knowledge of corporate governance and corporate finance literature by investigating on the nonlinear relationship between debt and firm value in the most recent Malaysian context by taking into account on the dynamic endogeneity issue. For further research, other proxies of debt could be employed as well as other estimation methods.

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Chapter 53
Factorial Validation of Salient Beliefs Pertaining to Islamic Financing Instrument

Mariatul Aida Jaffar, Rosidah Musa, and Ku Aziliah Ku Mahamad

Abstract The purpose of this paper is to construct and validate the underlying factorial structure of salient belief factor measurement scale as the antecedent of attitude towards Islamic financing. The analysis was based on a sample of 125 microenterprises and SMEs in Halal production, collected at Halal exhibitions via interviewer-administered questionnaire. A simple random sampling approach was used in the data collection. Exploratory factor analysis (EFA) was performed to determine the factorial structure for salient beliefs. Subsequently, confirmatory factor analysis (CFA) was executed to confirm and validate the factorial structure. The results confirmed a five-factor structure as conceptualised, i.e. knowledge and awareness, religion obligation, cost-benefits, business support and reputation.

Keywords Salient beliefs • Islamic financing • Small and medium enterprise • Halal

53.1 Introduction

The Halal industry has emerged as a new source of economic growth. The growing Muslim population totaling at 1.8 billion or 23 % of the world population, the increasing awareness and demand for *Shariah*-compliant products among Muslims and the increasing acceptability of Halal products among non-Muslims have created massive possibility of growth in the Halal business. The global Halal business market is estimated at USD2.3 trillion in 2012, excluding Islamic banking, finance and insurance [1]. Meanwhile, the global Islamic banking and finance industry assets are worth at over USD1.3 trillion in 2012 and expected to reach USD2 trillion in next 3–5 years. If the Halal business market and Islamic finance were to combine,

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the potential size of the Halal industry is estimated at USD3.5 trillion. In the World Halal Forum 2011, Halal and Islamic finance sectors are reported to be the two fastest-growing *Shariah*-compliant industries, which are growing at 15–20 % per annum. Despite the similarities and significant growth, the two *Shariah*-compliant business sectors are growing at different momentum and are developing independently. Islamic finance has become a global brand and a sophisticated and organised industry in the past four decades, while the Halal industry is seen as more fragmented and less structured and has only emerged in the global sphere for the past 10 years [2]. In realising the disconnection of the two business sectors, there is a need to combine Islamic finance and the Halal industry holistically by making Islamic finance part of Halal production.

In Malaysia, the issue of disconnection between Halal and Islamic finance sectors is witnessed by the low penetration of Islamic finance among the Halal industry players. Although, Islamic banks have established in Malaysia for almost three decades, there are only 5 % of Halal players that use Islamic banking and finance products while the remaining 95 % are nonusers of Islamic financing instruments [3]. Being a true Halal business operator, the business must not just focus in Halal production but must also adopt an Islamic or *Shariah* way of financing. However, this has not been achieved. Given the research problem, it is important to understand the factors that influence the attitude of entrepreneurs towards Islamic financing. There have been substantial literature on attitude, but minimal attitude studies on Islamic finance were emphasising on the antecedents of attitude, that is, salient belief. To the researcher's knowledge, no study to date has specifically examined the factors that influence attitude formation towards Islamic financing from the perspective of Halal-certified product entrepreneurs. This study posits that the salient beliefs that entrepreneurs obtained from perception or experience with financial institutions products and services affect their attitude towards Islamic financing. Therefore, the purpose of this paper is to assess the factorial validity of the salient belief factor using the factor analytic technique to assess the internal consistency and construct validity of the five factors.

53.2 Literature Review

A. Development of Salient Belief Factor

In order to understand a person's particular attitude towards behaviour, it is necessary to assess the person's salient beliefs about the behaviour. Ajzen and Fishbein [4] defined attitude as an individual's positive or negative disposition towards a behaviour. They argued that 'a person's attitude toward a behaviour is determined by a set of salient beliefs he holds in performing the behaviour'. They also generalised that a person forms beliefs about an object by associating it with various characteristics, qualities, attributes and the person's life experiences.

Fishbein and Ajzen [5] have identified salient beliefs 'by examining an individual's or groups' belief hierarchy'. In other words, the first few beliefs elicited by an individual and the most frequently elicited beliefs are considered the salient beliefs. This study has applied the theory of planned behaviour (TPB) by Ajzen [6, 7] as the basis of investigating the attitude and behavioural intention to adopt Islamic financing in business. In TPB, salient beliefs are found to be the antecedents of attitude [5]. Attitude is the overall evaluation that expresses how much we like or dislike an object, person, issue or action [8].

In this study, salient belief factors were conceptualised and derived from the existing literatures and qualitative findings via face-to-face interviews with the entrepreneurs. Previous attitude studies from the individual customers' perspective were adopted as entrepreneurs are considered individualistic when it comes to making decisions for the company. In addition, reviews on customers bank patronage factors or selection criteria of Islamic banks were adapted in this study. Out of the factors that were discussed, the motives that have a significant impact were identified as salient belief factors [4] recommended that the first five to nine beliefs emitted in the individual's mind are considered his salient beliefs about the object.

The five salient belief factors, i.e. awareness and knowledge, religion obligation, cost-benefits, business support and reputation, were hypothesised to influence the formation of attitude towards Islamic financing. Previous attitude studies on Islamic finance found that most of the bank customers wish to patronise Islamic banks if they have an understanding of the system [9]. This suggests that the higher the awareness and knowledge about the product or system, the higher the rate of adoption. Religion obligation refers to the adherence of Islamic financial institutions towards the Shariah principle, i.e. riba-free investment in Halal business and equal distribution of wealth. This suggests that the greater the adherence to Shariah principle, the more favourable attitude is formed. In Islamic finance, cost-benefits is measured by cost of products and rate of return, availability of credit with favourable terms, lower service charge, lower interest charge on loan, high interest payment on deposits and lower monthly payment [10]. The variables for business support were measured in terms of the extent of Islamic financial institutions that support business management and encourage business innovation and expansion, as well as improve business efficiency [11]. Reputation is based on perceptions of the reliability, credibility, social responsibility and trustworthiness of the organisations [12]. In this study, reputation refers to social responsibility and social objectives of Islamic financial institutions and agencies that provide Islamic financing. Based on the previous studies, it is hypothesised that the salient belief factor, which comprises awareness and knowledge, religion factor, cost-benefits, reputation and business support, is positively related to attitude towards Islamic financing.

53.3   Research Design and Methodology

A. *Instrument Design*

Guided by the review of existing literatures and exploratory interviews with entrepreneurs, an instrument was developed to fulfil the objectives of the study. The questionnaire was divided into four sections. Section A captured the information about respondent demographic profile and characteristics of the respondents' business such as sales turnover, number of employees and category of business. Section B covered questions on the usage of Islamic financing and awareness of Islamic finance terminologies. Section C of the instrument measured the salient belief factors, i.e. knowledge and awareness, religion obligation, cost-benefits, business support and reputation. Section D covered questions on TPB constructs.

In this present study, the salient belief factor scale has been adapted and extended to suit with the business setting. For knowledge and awareness construct, the items were adapted from Othman and Ali [13], Ahmad and Haron [14], and Dusuki [15]. Items for religion obligation were adapted from Gait and Worthington [16] and Ahmad and Haron [14]. Four items were utilised to assess the influence of cost-benefits on entrepreneurs' attitude towards Islamic financing. The items were adapted from Hamid and Masood [10], and Dusuki and Abdullah [17]. Items on business support were adapted from Hamid and Masood [10] and Gait and Worthington [16]. To assess the influence of reputation on entrepreneurs' attitude, items were adapted from Osman and Ali [13] and Dusuki and Abdullah [17]. Some of the items in each construct were adapted from exploratory interview and had made minor refinement to suit with the context of the study. Section D of the instrument measured the key constructs of TPB, i.e. attitude, subjective norms, perceived behavioural control and behavioural intention. The scales utilised in this study are the semantic differential scale, dichotomous scale and seven-point Likert scale (1 = strongly disagree to 7 = strongly agree) considering the wider ranges of choices and for the reason of validity and reliability.

B. *Data Collection*

The data was collected at Halal exhibitions, namely, MIHAS (Malaysian International Halal Showcase) and HALFEST (Halal Fiesta), via interviewer-administered questionnaire. Since there is a sampling frame, a sampling design using probability sampling technique was employed. A simple random sampling using a list of exhibitors at Halal exhibitions was used to achieve the sample size of 125 respondents. The sample size met the recommended sample size for EFA which is at least 100 respondents [18].

53.4 Results

A. Demographic and Business Characteristics of Respondents

Table 53.1 presents the demographic profile of respondents and their business characteristics. The sample was largely represented by the Muslims (88 %) and consisted of more male (56 %) than female (44 %) respondents. Majority falls under the age of 30–49 years old (63.4 %). A total of 69.6 % of the respondents attained at least diploma or degree level. According to SME Corp., the microenterprises and SMEs can be classified based on the annual sales turnover and number of staff. The data on the annual sales turnover showed that a majority of the respondent can be classified under small-sized enterprises (68 %), whereby their business sales turnover is between RM250,000.00 and RM10million. This is followed by microenterprises (24.8 %) and medium-sized enterprises (7.2 %) in terms of sales turnover.

Tables 53.2, 53.3, 53.4, 53.5 and 53.6 present the item-by-item mean score of 21 items for salient belief factor before EFA was conducted. For the knowledge and awareness construct in Table 53.2, three items scored above the mean value of 5 on a seven-point scale. This result indicated that respondents do have some knowledge on Islamic financing product offering, but knowledge on the underlying concept was deemed mediocre. Table 53.3 revealed that the perception held towards financial providers to adhere with Shariah principle scored higher (mean = 5.30) compared to the interest or riba-free perception with the lowest mean value of 4.62. It is worth noting that the standard deviation for interest- or riba-free perception was more dispersed which shows the respondents' uncertainties on this criteria. The mean value for all items in the cost-benefit construct (Table 53.4) were slightly above 4 which is the midpoint scale. This is probably due to the lack of knowledge and experience with Islamic financing products. Table 53.5 displayed the perceived business support of financial providers to respondents. The lowest mean value was 3.65 on the perceived less strict and fast in loan approval, while average mean score for business management support (mean = 4.84) and preference to finance larger corporations than microenterprises and SMEs (mean = 4.75). The findings suggest that financial providers are less financially supportive of the entrepreneurs. Table 53.6 revealed that all items in the reputation construct scored slightly above 4, which is the midpoint scale. This indicates that the financial providers' fulfilment of Islamic reputation is still mediocre.

B. Exploratory Factor Analysis

Exploratory factor analysis is one of the most commonly used method for reducing a large item pool to a more manageable set [19]. The goal of exploratory factor analysis is to find the most suitable items for each unobserved (latent) constructs.

Table 53.1 Demographic and business characteristics of respondents

Variable	Description	Frequency	Percentage (%)
Religion	Muslim	110	88.0
	Non-Muslim	15	12.0
Gender	Male	70	56.0
	Female	55	44.0
Educational level	Primary	2	1.6
	Secondary	22	17.6
	Certificate/diploma	29	23.3
	Bachelor's degree	57	45.6
	Masters/PhD	14	11.2
Age	Below 20 years old	1	0.8
	20–29 years old	18	14.4
	30–39 years old	41	32.8
	40–49 years old	38	30.4
	50 years and above	27	21.6
Annual sales turnover	Less RM 250,000	31	24.8
	RM250,000–RM500,000	33	26.4
	RM500,000–RM1 million	14	11.2
	RM1 million–RM10 million	37	30.4
	RM10 million–RM25 million	7	5.6
	Above RM25 million	2	1.6
Number of employees	Less than 5	24	19.2
	5 to less than 10 staff	42	33.6
	10 to less than 50 staff	45	36.0
	50 to less than 100 staff	10	8.0
	100 to less than 150 staff	3	2.4
	150 staff and above	1	0.8

Table 53.2 Knowledge and awareness

Variable	Mean	SD
1. I am aware of the existence of Islamic financing for microenterprises and SMEs	5.55	1.298
2. I know and understand the differences between Islamic and conventional financing	5.23	1.546
3. I know the basic principles applied in Islamic financing	4.91	1.535
4. I am aware of the Islamic financial products offered to both Muslims and non-Muslims	5.61	1.529

The EFA using principal component extraction method with varimax rotation was conducted. This analysis is important in confirming the construct validity of the scales [19]. In this study, the first EFA was performed on 21 items to assess the factor structure of salient belief measurement scale. With the generated principle component analysis output, the researcher examined the factor loading to identify

Table 53.3 Religion obligation

Variable	Mean	SD
1. Follow Islamic (Shariah) principle	5.30	1.661
2. Are completely interest-free	4.62	2.035
3. Fair to everyone	4.94	1.696
4. Investing in Halal business	5.23	1.700

Table 53.4 Cost-benefits

Variable	Mean	SD
1. Islamic financing is more profitable than conventional financing	4.85	1.695
2. Islamic financing offers credit at favourable terms and conditions	4.97	1.475
3. Islamic financing offers lower service charge and monthly repayment	4.38	1.533
4. Islamic financing offers lower cost of borrowing funds than conventional financing	4.19	1.707

Table 53.5 Business support

Variable	Mean	SD
1. Encourage business expansion	5.14	1.625
2. Support business management	4.84	1.757
3. Less strict and fast approval of loan	3.65	1.541
4. Prefer to finance large corporations than microenterprises and SMEs because of business risk	4.75	1.709

Table 53.6 Reputation

Variable	Mean	SD
1. Promote Islamic values and the way of life to staff, clients and general public	4.57	1.588
2. Contribute to social welfare	4.80	1.414
3. Do not only maximise profit but also enhance standard of living and community welfare	4.66	1.503
4. Promote sustainable projects	4.53	1.473
5. Not transparent and many hidden charges are not properly explained	3.98	1.907

items to be retained or removed in the pool. Hair et al. [20], p.118, posits that although factor loadings greater than 0.30 are minimally acceptable, values greater than 0.5 are considered practically significant. The initial factor analysis revealed that two items were not psychometrically sound in terms of their target loading. The two items were lower than the acceptable threshold of 0.5 (<0.3); hence they were removed. The low factor loading for the two items were probably due to the new measurement scale assumption as the items were adapted from exploratory interviews. An EFA for the remaining items was performed again. Table 53.7 displays the final results of EFA for the remaining 19 items, which resulted in five dimensions: F1, reputation; F2, religion obligation; F3, cost-benefits; F4, knowledge and awareness; and F5, business support. The five-factor solution was extracted with

Table 53.7 Exploratory factor analysis for salient belief factor

Item	Factor loading				
	F1	F2	F3	F4	F5
1. Aware of the existence of Islamic financing for microenterprises and SMEs				0.66	
2. Understand the differences between Islamic and conventional financing				0.88	
3. Basic principles applied in Islamic financing				0.90	
4. Offered to both Muslims and non-Muslims				0.65	
5. Follow the Islamic (Shariah) principle		0.70			
6. Completely interest (riba)-free		0.74			
7. Fair to everyone		0.73			
8. Investing in Halal business		0.83			
9. More profitable than conventional financing			0.66		
10. Offer credit at favourable terms and conditions			0.68		
11. Offer lower service charge and monthly repayment			0.81		
12. Lower cost of borrowing funds than conventional financing			0.76		
13. Encourage business expansion					0.73
14. Support business management					0.75
15. Prefer finance large corporations than microenterprises and SMEs because of business risk					0.65
16. Promote Islamic values and way of life to staff, clients and general public	0.78				
17. Contribute to social welfare	0.81				
18. Do not only maximise profit but also enhance standard of living and community welfare	0.76				
19. Promote sustainable projects	0.76				
Eigenvalues	6.31	2.81	1.62	1.31	1.20
% of variance explained	33.20	14.77	8.53	6.91	6.32
Cronbach's alpha	0.88	0.82	0.83	0.79	0.66

eigenvalues greater than 1, explaining 69.71 % of the total variance. The factor loadings for the 19 items ranged from 0.65 to 0.90, above the threshold value of 0.5 [20].

The result revealed that the Kaiser-Meyer-Olkin (KMO) statistic of sampling adequacy was 0.819, which is above the cutoff level value (>0.8), indicating the applicability of exploratory factor analysis. The Bartlett test of sphericity (BS) was employed to test the presence of correlations among variables, and it was statistically significant (1,262.59 at $p < 0.000$). The results of the factor analysis show that the indicators exhibit a reasonable level of unidimensionality pertaining to factors that are supposed to measure; most items or indicators load on the same and expected factor with high factor loadings. The Cronbach's alpha coefficients for salient belief factors based on items retained after the final EFA showed that the reliability coefficient ranged from 0.66 to 0.88. As a rule of thumb, a scale is

considered reliable when the Cronbach's alpha value is at least 0.7 as proposed by Nunnally and Bernstein [21].

C. Confirmatory Factor Analysis

Gerbing and Anderson [19] maintain that item-total correlation, coefficient alpha and exploratory factor analysis do not assess unidimensionality of measures. They strongly recommend that a more rigorous evaluation of unidimensionality is required to evaluate and refine the scales generated from the EFA. Hence, CFA was proposed to check the unidimensionality of measures and goodness of fit of the measurement scale.

In this study, after the underlying factor were extracted from EFA, the factorial structures were validated and confirmed by CFA. CFA was carried out using AMOS 21 analytical programme. In AMOS 21, several indices were available to assess the fit of the underlying data and the measurement model. The most commonly used indices are chi-square, goodness-of-fit index (GFI), comparative fit index (CFI), incremental fit Index (IFI) and root mean square error of approximation (RMSEA). The initial result of model fit indices revealed a moderate fit with $\chi^2 = 310.043$, $\chi^2/df = 1.732$, $df = 179$, GFI $= 0.815$, IFI $= 0.895$, CFI $= 0.893$ and RMSEA $= 0.077$.

The initial result based on 21 items showed that all except three items loaded heavily on the factor and standardised regression coefficient is greater than 0.5. The three items with low regression weights (<0.5) will be removed to improve the model fit indices and reliability value of business support (BS) and reputation (REP) dimensions.

Table 53.8 illustrates the results of the five dimensions of salient belief factor after deletion of items, which include the standardised factor loadings, Cronbach's alpha, composite reliability (CR) and average variance explained (AVE). The deletion improved the model fit as follows: $\chi^2 = 226.768$, $\chi^2/df = 1.814$, $df = 125$, $p < 0.001$, GFI $= 0.833$, CFI $= 0.913$, IFI $= 0.915$ and RMSEA $= 0.081$. Figure 53.1 presents the final factorial structure of the salient belief factor. All indicators loaded significantly on their respective dimension and supports an 18-item, 5-dimensional scale for salient belief factor. Montoya-Weiss and Calantone [22] suggested that CFA could assess construct validity and reliability of the measurement scale. In this study, after analysing unidimensionality, subsequently, the researcher performed construct reliability, which includes Cronbach's alpha and composite reliability (CR). Composite reliability reflects the internal consistency of the construct indicators. All CR scores were ranging from 0.81 to 0.89, above the acceptable value of 0.7 [20], indicating that internal consistency exists. Cronbach's alpha was then analysed to double-check the scale reliability. The alpha values were ranging from 0.79 to 0.87, exceeding the cutoff point of 0.7 [21], thus suggesting good reliability.

Finally, construct validity was performed to assess the extent of measured items reflect the theoretical construct [20], and this includes convergent validity and

Table 53.8 Confirmatory factor analysis for salient belief factor

Variable	Standardised regression (loadings)	Cronbach's alpha	CR	AVE
Knowledge and awareness				
1. Aware of the existence of Islamic financing for Micro and SMEs	0.61	0.793	0.816	0.542
2. Understand the differences between Islamic and conventional financing	0.87			
3. Basic principles applied in Islamic financing	0.91			
4. Offered to both Muslims and non-Muslims	0.46			
Religious obligation				
1. Follow Islamic (Shariah) principle	0.75	0.820	0.821	0.534
2. Completely interest (riba)-free	0.76			
3. Fair to everyone	0.73			
4. Investing in Halal business	0.68			
Cost-benefits				
1. More profitable than conventional financing	0.66	0.830	0.836	0.562
2. Offer credit at favourable terms and conditions	0.80			
3. Offer lower service charge and monthly repayment	0.73			
4. Lower cost of borrowing funds than conventional financing	0.80			
Business support				
1. Encourage business expansion	0.88	0.892	0.895	0.810
2. Support business management	0.92			
Reputation				
1. Promote Islamic values and way of life to staff, clients and general public	0.67	0.875	0.875	0.640
2. Contribute to social welfare	0.76			
3. Do not only maximise profit but also enhance standard of living and community welfare	0.89			
4. Promote sustainable projects	0.86			

discriminant validity. Convergent validity is accepted when indicator's factor loading are higher than 0.4 on their respective construct and t-value is higher than 1.96 [23]. In this study, all indicators loaded significantly on their latent construct, and the critical ratio (t-value) of the items exceeded $\pm$ 1.96, which made convergent validity evident. The average variance extracted (AVE) scored ranging from 0. 53 to 0.81, which all exceeded 0.5 as recommended by Fornell and Larcker [24], thus providing adequate evidence of convergent validity. Discriminant validity was performed to assess the extent of a construct distinctly with other constructs [25].
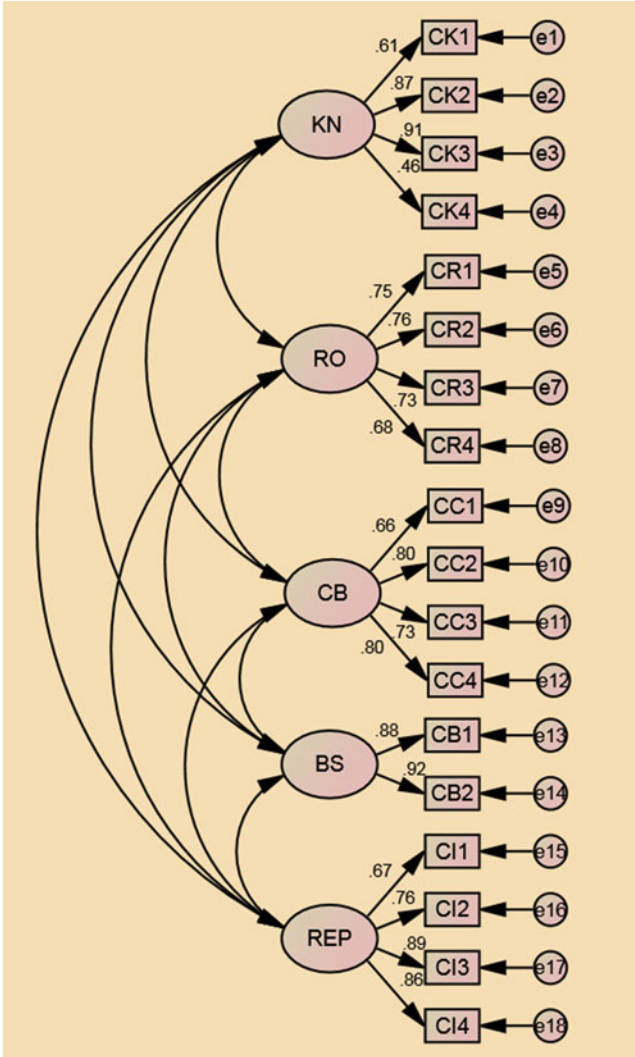
Fig. 53.1 Final results of confirmatory factor analysis for first-order five-factor model

Discriminant validity is assessed by comparing the AVE of each construct with shared variance (squared correlations) between constructs [25]. In this study, the AVE of each construct was computed and found to be greater than the squared correlation between constructs and other constructs of salient belief factors in Table 53.9 as recommended by Nunnally and Bernstein [21] and Farrell [25]. This means that the indicators have more in common with constructs that they associated with than other constructs of salient belief factor, thus suggesting adequate evidence of discriminant validity.

Table 53.9 Average variance extracted estimates and shared variance for salient belief factor

Variable	F1	F2	F3	F4	F5
Reputation (F1)	**0.64**	0.34	0.43	0.01	0.33
Religion obligation (F2)	0.59	**0.53**	0.22	0.05	0.27
Cost-benefits (F3)	0.66	0.47	**0.56**	0.08	0.29
Knowledge (F4)	0.10	0.23	0.29	**0.52**	0.01
Business support (F5)	0.57	0.52	0.54	0.07	**0.81**

Note: AVE estimates are presented on the diagonal axis. Correlations are below the diagonal. Squared correlations are above the diagonal

53.5 Conclusion

The findings show that the 18-item construct is a reliable and valid measure to determine the underlying factorial structure of salient beliefs. The EFA of salient beliefs unveiled five-factor solutions, which were knowledge and awareness, religion obligation, cost-benefits, business support and reputation. Items of salient belief scale were refined to 19 items from 21 items; only two items were removed with low factor loading. The CFA provides a more thorough and rigorous assessment than EFA. It suggests that three items have to be removed in order to improve the model fit. Thus, the final salient belief construct comprises of 18 items and has confirmed a 5-factor structure. From the researchers' best knowledge, this present study is among the preliminary studies that validate the salient beliefs in the context of Islamic financing. The salient belief scale can be a useful indicator in determining the attitude towards Islamic financing among the business owners. To ensure credibility of the result, future research needs to increase in the number of sample.

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Chapter 54
Gold Investment Account in Malaysia: Comparative Review of Gold Investment Scheme Between Maybank Bhd. and Genneva Malaysia Sdn. Bhd.

H.A. Zainal-Abidin and P.L. Tan

Abstract   The gold investment account is offered by conventional banks in Malaysia and is particularly popular among the small-time investors who are interested in gaining from the increase in gold price. It allows investors to buy as low as 1 g of gold. It also provides convenience for investors not to retain the physical gold themselves due to security issues as well as storage costs. Furthermore, dealing with banks in gold transactions might somewhat guarantee the authenticity of the gold, and it is unlikely for banks to go bankrupt as they are under the purview of the central bank, Bank Negara Malaysia (BNM), compared to dealing with other gold trading companies or jewellery stores. At the same time, gold investors in Malaysia also invested in private gold investment companies such as Genneva Malaysia Sd. Bhd. (Genneva). However, the Genneva gold trading scheme is deemed as a scam by the BNM and is currently pending court hearings. Nevertheless, this paper shows that there are similarities between the gold investment account system by conventional banks and the Genneva gold trading scheme. The similarities between the two are alarming and might suggest the vulnerability of the current gold investment system offered by Malaysian banks, especially during economic downturn. It will also open up discussions on the possibility for various improvements that could be implemented to reduce the risks in the gold investment account faced by both the investors and banks.

Keywords   Gold investment • Malaysia

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54.1   Introduction

Gold has become the topic of choice in the financial world when it comes to a reliable and stable type of investment that is adverse to the market conditions especially against the volatile equity market [4]. It is also said that gold is a good hedge against inflation as well as its low correlation to other types of asset [2]. Gold has been one of the world's oldest 'relics' in the monetary system and was once the underlying commodity of which currency was pegged on in the United States of America (USA) in the era of Bretton Woods in the early 1940s [5]. It serves as an anchor to the growth of money supply and hence indirectly has control over interest and inflation rates. The price of gold has been soaring for the past decade or so. The price has been steadily increasing so much so that gold is deemed as a safe haven, a store of wealth against future 'rainy days' and an alternative choice for investment portfolio diversification [3]. Although historical data shows that the price of gold has dropped in the recent years, it is still considered as the 'safest investment' available out there against other more volatile types of investment.

This research is different from previous researches which mostly emphasise on the possibility of using gold (dinar) as currency replacing the current fiat money system [1, 6]. There is paucity in research on gold investment despite its increasing popularity in the domestic market. Previous researches also assessed the relevance of gold investment from domestic point of view which arguably is more relevant to guard against the volatility of stock market performance [3]. Meanwhile, a research was done to compare gold investment account in the Kuwait Finance House (M) Berhad (KFH) and Maybank Berhad (MBB) which focused on the difference between *Shariah*-compliant and conventional bank offers and how the former is deemed as a safer mode of investment [6].

However, this paper focuses on the weaknesses of the current system of gold investment account practised by one of Malaysia's main local banks, Maybank, and a private gold investment company, Genneva. It compares the Maybank gold investment account with the Genneva gold trading system. The Genneva gold trading system is considered the best choice for comparison because preliminary analysis showed many similarities between the two gold investment systems. The Genneva gold trading scheme is deemed as a scam by Malaysia's central bank and the case is currently being prosecuted at the court of law. The paper will show that the Maybank gold investment account might not be so different than the Genneva gold trading system after all, hence raising the question of whether local banks' gold investment account can be deemed as scam like the Genneva gold trading system.

54.2 Gold Investment Account in Malaysia

The gold investment account is offered by some conventional banks in Malaysia, namely, Maybank, Public Bank, CIMB and UOB. There is only one Shariah-compliant gold investment account in Malaysia under KFH. The gold investment account is for investors who are interested in gaining from the increase in gold price. It allows investors to make deposits when gold price is low and make withdrawals when gold price is high.

The dawn of gold investment account came about due to pressing issues investors are concerned of when investing in gold. Among other things, security, storage costs, liquidity of investment and authentication of gold have been identified as the reasons investors shifted to this type of investment as compared to the traditional 'sell and buy' of physical gold [1]. Despite these raving pros of choosing gold investment account, there are also disadvantages investors need to consider such as investors do not actually own the physical gold, and if the bank goes under, investors will not be able to recover their investments, as it is not guaranteed by Perbadanan Insurans Deposit Malaysia (PIDM), and some argued that this type of investment is considered as 'non-halal' income for Muslim due to the absence of agreed traded items [6].

A. Genneva Gold Trading

Genneva is a licenced gold bullion trader that offers a lucrative trading system towards its traders by selling pure 999.9 gold bullions at a minimum purchase of 100 g and issuing an ownership certificate to replace the physical gold bullion. The transaction is also accompanied by 'buy-back agreement' and 'letter of guarantee'. The buy-back agreement is a legally binding agreement that states Genneva will buy back the gold bullion at purchase price upon 'maturity' of 180 days, or so they thought. The issue with this buy-back agreement is that in the fine print of the contract, it is stated explicitly that Genneva has no obligation to buy back the gold from investors in any circumstance that deemed necessary. Investors were manipulated in thinking that they are secured because of that agreement. It also offers monthly savings of 1.5 % on average of the capital invested. At the end of the maturity period, investors can opt to do either one of the following options:

1. Option 1: Renew contract for another 6 months.
2. Option 2: 100 % buy-back at purchase price.
3. Option 3: Hold the gold and sell to a trader at a later date.

The idea they are preaching to lure investors is that as long as they are willing to hold the contract, it means 18 % average returns per annum, while holding 999.9 pure gold bullions. However, some investors have claimed that the physical gold bullions were not delivered to them and some claimed that even if they were

delivered, there will be a delay in delivery. Most of the investors had chosen not to take the physical gold bullions because it was troublesome for them to bring them over upon renewal or extension of contract.

B. Maybank (MBB) Gold Investment Account

The gold investment account offered by the MBB offers a similar deal as Genneva with only slight differences. They are offering investors to buy and sell gold through a bank book (passbook). Investors must open up savings or current account with the MBB to qualify for investment. The 'paper' gold is sold and purchased at daily/spot market price quoted by the MBB. The price quoted is at the prevailing rate determined by the MBB, which is why gold price varies at different banks. It allows investors to buy as minimum as 1 g of gold at every transaction. It is accompanied by the standard commercial contract that states, among other things, the bank is in no circumstances become liable to execute investors' instruction to sell their gold. However, in comparison to Genneva, banks do not offer a monthly return nor do they promise to buy the gold back at purchase price at a certain agreed future period.

54.3   Flaws in the Current MBB Gold Investment Account

The flaws identified in this paper are the 'flaws' referred to arrangements that might be unfavourable in investors' interests. Arguably, banks will cater the arrangements or a system to the best of their advantage. Some loopholes in the MBB current gold investment account are identified below:

A. *Absence of physical gold in transactions*

According to Syed Alwi et al. [6], the MBB gold account is purely dealing with 'paper gold' which can be defined as a piece of paper (or in this case a passbook) acting as a substitute for physical gold. Or simply said, the investors are creditors of the party issuing the paper gold certificate or passbook. This makes the originally intended transaction to invest in gold becoming a 'money lending' transaction with creditors (or investors) at the worst position because there is not even an interest earned from the banks for the 'borrowed money'.

This characteristic of the MBB gold investment account is not so different from the Genneva operation. Upon being raided by the BNM, Genneva's liabilities were more than its assets, i.e. the gold bullion confiscated could not have paid for the gold contracts issued to investors. Genneva was most likely paying the later investors' money to pay the earlier investors when they were due. It is also argued that the Genneva system had become a 'money lending'

transaction with the investors lending their money to Genneva with monthly 'hibbah' as interest payment and gold (if they ever get their hands on it or as they thought they actually owned it in the safekeeping of Genneva) as a collateral until Genneva 'pays back' the principal loan by 'buying back' the gold at an agreed maturity date. At least in this case, investors get monthly 'interest' on the money 'loaned' to Genneva.

B. *No guarantee on the amount invested*

Amounts invested in both the MBB gold investment account [6] and Genneva are not guaranteed by PIDM. As a 'lender', investors are susceptible to a myriad of counterparties and potential bankruptcy risks. Should the economy had gone bad for some reasons and the MBB was declared bankrupt and its assets frozen, investors will not get back their money. The same goes to Genneva's investors where they were left without any assets when the BNM froze its assets.

On top of this, there is also no guarantee that neither the MBB nor Genneva would 'buy back' the gold upon investors' request to sell (with the MBB) or terminate the contract (with Genneva). It is stated that:

In the event of economic recession or financial turmoil, 'paper gold' might not have much value as its gain cannot be materialised as both MBB and Genneva have the sole right to reject any instruction for sale from investors.

C. *Discretionary quoted gold price*

Banks such as the MBB have their own prevailing selling price for gold. This is the reason gold price varies across different banks. The gold selling price quoted by the MBB might have been inflated to cover the transactions and other administrative costs and hence arguably higher than the actual spot price of gold. No one can be sure of how the prevailing gold price is calculated by banks.

Genneva was also using a discretionary gold price which was inflated with premiums by approximately 20–30 % higher than the actual spot price of gold. In the Genneva case, it is argued that the premium paid is exactly the money used to pay the monthly 'hibbah' to investors.

The discretionary price of gold puts investors at a disadvantage because they cannot verify if the price quoted is inflated or not; the most they can do is to make comparison with other banks, which could also be using their own calculated price. Investors have no means to ensure if the price has been manipulated or reflective of the current gold performance in the world market.

At the end of the day, with the similarities mentioned above, the MBB gold investment account does have similarities with the Genneva gold scheme. If that is the case, one might wonder why Genneva was being accused of operating a scam and not the MBB. There are probably a few reasons for that, but a prominent one would be due to the fact that Genneva is not licenced by BNM to take deposits, and as explained before, with the absence of physical gold, the whole transaction can be interpreted as 'money lending' business.

54.4 Recommendations

In order to prevent possible future disasters, especially during economic recession and financial crisis, some recommendations are proposed in this paper in the hope that they can help to improve the current MBB gold investment account system to not only be in favour of the bank but to the investors as well.

A. *Physical Gold Backup*

It is highly recommended that every transaction made in the MBB gold investment account is backed with physical gold. This is in line with Shariah principle of bay 'al-sarf which means the exchange of one monetary form for another in the same or different genera, that is, gold for gold coins, silver for silver, gold for silver and silver for gold, whether it is in the form of jewellery or minted coins [6]. This principle ensures that there is no element of uncertainty (gharar) and according to one of the rules in contract of sale in Islam is the existence of subject matter (gold) during the contract agreement process. The allocated physical gold will then be loaned to the bank under the Shariah principle of qard. This way, investors can still avoid the storage costs and security concerns over possession of such physical assets.

These Shariah principles (bay 'al-sarf and qard) were supported by Syed Alwi et al. [6] in their research on the comparison between the gold investment account system under an Islamic bank (KFH) and a conventional bank (MBB). This paper however will propose an extension to these principles by boldly suggesting that the physical gold be assured under each investor's right of ownership to be held by the BNM for safekeeping and protection against any moral hazard committed by the banks since the risk will be borne by the investors. This suggested method works the same principle as current regulation to maintain a certain percentage of total deposits collected from customers in the BNM reserve. Since banks still retain some physical gold in their vault, minimal sale and purchase of gold through a gold investment account is still made possible as the movements of gold transactions at any given time can be offset against each other. Since BNM is considered the most secured 'bank' and technically cannot go bankrupt and is highly regulated by laws and monitored by both the government and public, it is deemed more secured and highly beneficial towards investors.

B. *Control Over Gold Price*

The selling and buying price of gold quoted by banks and any financial institutions under the purview of BNM has to be standardised with minimal variations allowed to cater for different transportation (of physical gold) and other administration costs

incurred. By closely monitoring the quoted price, it reduces tendencies of moral hazard committed by the bank from manipulating the price since they are in the best position having all data available to make sound and reasonable decisions over the best price to be offered to investors.

C. Regulations and Guarantee on Gold Investments

Of course in order for BNM to adopt these suggestions, there is a need to analyse and enhance the existing laws and regulations governing gold trading and investments in Malaysia. At the moment, gold market in Malaysia is not highly regulated by BNM, hence allowing greedy and highly creative people with ill intentions to take advantage of this situation, as in the Genneva case. If BNM takes possession over the physical gold from the banks, the gold investment will then be guaranteed under a compulsory insurance scheme just like PIDM for insurance on deposits. Not only is it a guarantee or an insurance rendered in unfortunate events like if the bank goes bankrupt but also a guarantee on the authentication of gold quality. When a gold investment is guaranteed by the BNM, it gives good signals to the market domestically and internationally, hence encouraging and enticing them to invest in Malaysia. This in return will help boost the Malaysian economy with healthier results of total gross domestic product (GDP) through increments in domestic investment.

54.5 Conclusion

The MBB's current gold investment account is not perfect, just because it is a big entity and highly regulated by BNM. There are many similarities between the MBB gold investment account and Genneva. Absence of physical gold to back up each transaction and no guarantee or insurance on the total amount invested as well as discretionary gold price are some of the characteristics of the MBB gold investment account. These shortfalls can be contained by having current regulations on gold market revised and enhanced so that it is compulsory to have physical gold to back up each transaction and to keep certain percentage of physical gold in the BNM reserve as well as monitoring and controlling the gold price quoted by banks and financial institutions.

However, there is a need to further analyse the pros and cons of the suggested recommendation of mandating a certain percentage of physical gold to be kept in the BNM reserve. The possibility of this becoming an additional element in the monetary policy and its impact on Malaysian economy is worth investigating. Controlling the quoted gold price might have some effects on banks; hence it is important to gauge their perception and level of acceptance towards this new policy, if it is ever being implemented by the BNM.

Appendix

Table 54.1 Comparison of characteristics between the Genneva gold trading scheme and bank gold investment account

No.	Characteristic	Genneva gold trading	Gold investment account
1	Selling gold to investors at market price plus premium	Yes at 20–30 % premium	Yes (at bank's discretion)
2	Monthly return	Yes ('hibbah'). Average of 1.8–2.5 %	No
3	Physical gold transfer	No (upon request for about 3 months lag, and some claimed they never held it physically)	No (bank has no obligation to present buyers/owners of physical gold)
4	Authentication of physical gold	Supposedly authenticated by Swiss Produits Artistiques Métaux Précieux (SUISSE)	N/A
5	Buy-back guarantee	No (expressed in contract that Genneva has no obligation to buy back), but in practice they do to gain trust from investors and traders	No (bank has the right to turn down investor's instruction to sell their gold under any circumstances deemed necessary)
6	Price used upon investor's order to sell	At the initial purchase price (which means guaranteed capital)	At the day of sale as quoted by the house bank
7	Insurance on investment	No	No
8	Bound by regulation	Yes – Law of Malaysia, Act 17	Yes – Law of Malaysia, Act 17
9	Confirmation of ownership	Certificate of ownership	Account passbook
10	*Shariah* compliant	Claimed to be but no supporting documents available	No and never claimed to be as such
11	Licenced by	Kementerian Perdagangan Antarabangsa dan Industri (Ministry of International Trade and Industry Malaysia)	Bank Negara Malaysia (Central Bank of Malaysia)
12	Method	Network marketing	Service marketing

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Chapter 55
Who Consumes Fresh Fruits in Malaysia? Analysis on Socio-demographic Influence

Shahariah Asmuni, Jamaliah Mhd Khalili, Nur Bashirah Hussin, Zahariah Mohd Zain, and Nor' Aisah Ahmad

Abstract This paper highlights the socio-demographic factors influencing Malaysian households on their consumption of fresh fruits in general and tropical fresh fruits in particular. The data used is the national household expenditure survey data for the period of 2009/2010. Fresh fruit choices of households indicate high preference for temperate fruits and tropical fruits that are partially imported. An ordinary least squares regression estimate indicates that fresh fruit purchases are significantly and positively influenced by an elderly household head, number of members in a household, level of education of household head, an urban household and household located in the East Coast region of Peninsular Malaysia. Further estimation is carried out using the binary logistic regression model on those preferring tropical fresh fruits among fresh fruit buyers. Results indicate similar findings on regional factor. Tropical fresh fruit consumption is also affected by age of household head, number of people in a household and household head being a male and a blue-collar worker. White-collar workers and urban dwellers, particularly those in the Central and Southern regions, are less likely to purchase tropical fresh fruits. Policies should consider the above socio-demographic factors if the local fresh fruit industry is to be successfully promoted.

Keywords Socio-demography • Tropical fresh fruit • Fruit consumption • Binary logistic regression

55.1 Introduction

Fruits are significant commodities in Malaysia, as they are part of agriculture, a sector that has received rising attention for its contribution as a National Key Economic Area [1]. The fruit industry contributes 25.87 % towards the production of the crop industry in 2011. While being significant to the growth of the country,

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the industry's local demand for fresh fruits has been fulfilled by large amounts of imports. The country's balance of trade for fruits was RM -424 million in 2007, and the deficit continues to increase with the trade balance of fruits at RM -966 million in 2011 [2].

The continuous reliance on imports for domestic consumption of food such as fruits may lead to negative implications such as increase in domestic prices [3], which can affect the quality of life and the competitiveness of the local food sector [4, 5].

For the fruit industry, it is thus important for policymakers to encourage local farmers to increase their outputs to meet domestic demand. To allow for the local fruit industry to flourish and successfully meet local demand, relevant parties need to understand the market from the buyers' perspective. Information on tropical fresh fruit buyers' socio-economic and demographic profiles will allow market understanding of potential buyers of these fruits.

Fresh fruits are fruits that are edible on their own after harvesting without the need for further processes. Tropical fruits refer to fruits produced within the tropical and subtropical regions of the world. Malaysia is a grower of various types of tropical fruits, and a large portion of daily household consumption of fruits in the country is in fresh form. The objective of this study in general is to investigate the characteristics of tropical fresh fruit buyers in Malaysia using the latest available household expenditure survey (HES) data. The specific objective of the study is to determine the socio-demographic factors influencing the purchases of fresh fruits in general and tropical fresh fruits in particular. The data used for the study, the national HES data, provides a rich amount of socio-economic and demographic data on households that can be used to investigate heterogeneity in purchase decisions. Subgroup analysis based on demography can be used when attempting to increase the consumption of a household item such as fruits and vegetables by a certain group of people [6]. In using such microdata, this study adds to the literature on the preference for fresh fruits through the use of discrete analysis applied using the binary logistic regression. While a number of studies attempting the use of discrete information are available for western countries [8], such literature for a developing country such as Malaysia is scant [9].

Findings of the study allow the understanding of the socio-demographic factors that contribute to the purchase of tropical fresh fruits. Understanding this would provide beneficial information that can guide policymakers in understanding who consumes fresh fruits in general and tropical fresh fruits in particular.

55.2 Fruit Consumption in Malaysia

HES data for the period of 2009/2010 highlights 32 different types of fresh fruits purchased by households. From the total expenditure of households made on fresh fruits during the survey period, the 10 most purchased fresh fruits are apple, durian, grape, orange, watermelon, sweet orange, banana, mango, rambutan and pear. From

this list, four of them are considered temperate fruits, which refer to fruits that are grown in temperate climate. They are apples, grapes, oranges and pears.

Total combined purchases on these fruits are 36.29 % of total fresh fruit purchases of all respondents combined. This reflects household's preference or inclination towards certain temperate fruits, which are imported from other countries. These fruits are available in fruit stalls, supermarkets or wet markets in most times of the year, thus making it easy to purchase.

The remaining six fresh fruit types most purchased can be divided into two groups. Durian, mango and rambutan are fruits that are seasonal and are considered as tropical fruits, as they are available only in certain times of the year and are harvested in a tropical region. These fruits represent 21.79 % of total fresh fruit expenditure. Durian is the second most purchased fruits based on expenditure. Apart from being a popular fruit during its season, the purchase of durian is high due to it being relatively more expensive as it is a large fruit with thick and heavy skin. The remaining are watermelon (which includes honeydew), sweet (local) orange and banana, which are also tropical fruits but are categorized as nonseasonal as they are available in the country all year round.

The purchase on the above three types of nonseasonal fruits constitutes 21.32 % of all fresh fruit expenditure. From the remaining fresh fruits (mostly tropical) listed in Table 55.1, pineapple, papaya and pomelo top the list.

These are considered nonseasonal and thus are available for purchase most times of the year. The remaining fruits are largely seasonal. While a number of them are locally produced fruits (such as jackfruit, mangosteen, duku (includes dokong and langsat) and starfruit), they are not significant in terms of value of purchases.

In Fig. 55.1, in terms of frequency of purchases, from the total of 17,158 respondents (households) who purchase fresh fruits, the fresh fruits with the largest number of buyers are apple with 7,279 households, followed by banana (5,550 households), watermelon and honeydew (4,738 households), orange (3,746 households) and grapes (3,250 households).

Other fresh fruits with more than 2,000 households (representing 11.7 % of fresh fruit buyers) purchasing them are pineapple, mango, sweet orange, papaya and durian.

Apple is indicated as the most popular fruit purchased, followed by banana, indicating people's strong preference towards these fruits. Both of these fruits are easily accessible in the market and are easy to carry, store and consume. Watermelon is less convenient to consume due to its large size; however, this fruit is popular for its sweet and juicy taste, and it is easily accessible.

Figure 55.1 shows inclination or preference (based on number frequency of households) towards temperate fruits such as apple, orange and grape.

There is also inclination towards tropical fruits such as banana, watermelon, pineapple, mango, sweet orange, papaya, durian and rambutan. While some of these are seasonal in nature (such as rambutan, durian and mango), the rest can be made available in the market throughout the year.

Tropical fruits in the country such as mango, banana and durian are partially imported to meet domestic demand. If policymakers in the country would like to

Table 55.1 Ranking of fresh fruit types based on household expenditure (HES 2009/2010)

Rank	Fruit type	Total expenditure, RM	Percent of total fresh fruit purchase
1	Apple	67,552.57	14.94
2	Durian	57,691.22	12.76
3	Grape	44,771.09	9.90
4	Orange	38,738.83	8.56
5	Watermelon	37,132.55	8.21
6	Sweet orange	29,840.5	6.60
7	Banana	29,465.18	6.51
8	Mango	26,143.46	5.78
9	Rambutan	14,699.72	3.25
10	Pear	13,078.06	2.89
11	Pineapple	10,759.88	2.38
12	Papaya	8,637.64	1.91
13	Pomelo	7,384.25	1.63
14	Langsat	6,587.81	1.46
15	Guava	6,586.72	1.46
16	Dragon fruit	5,992.06	1.32
17	Duku family	5,075.24	1.12
18	Longan/bidara	4,667.53	1.03
19	Cempedak	4,142.46	0.92
20	Mangosteen	3,924.1	0.87
21	Water apple	2,564.06	0.57
22	Jackfruit	1,697.14	0.38
23	Lychee	1,679.35	0.37
24	Starfruit	1,200.86	0.27
25	Plum	759.89	0.17
–	Others (tropical)	–	4.69
–	Others (nontropical)	–	0.00
	Total (%)		100

see more of locally produced fresh fruits being purchased by households, then they need to increase the production of local fruits that are popular among households.

55.3 Methodology

A. Economic Models

The analysis on fresh fruits for this study is carried out using econometric analysis. Basic statistic analysis will be performed to allow descriptive analyses of fresh fruit purchases and related socio-demographic information. Apart from that, two regression functions will be estimated to determine the factors influencing consumption
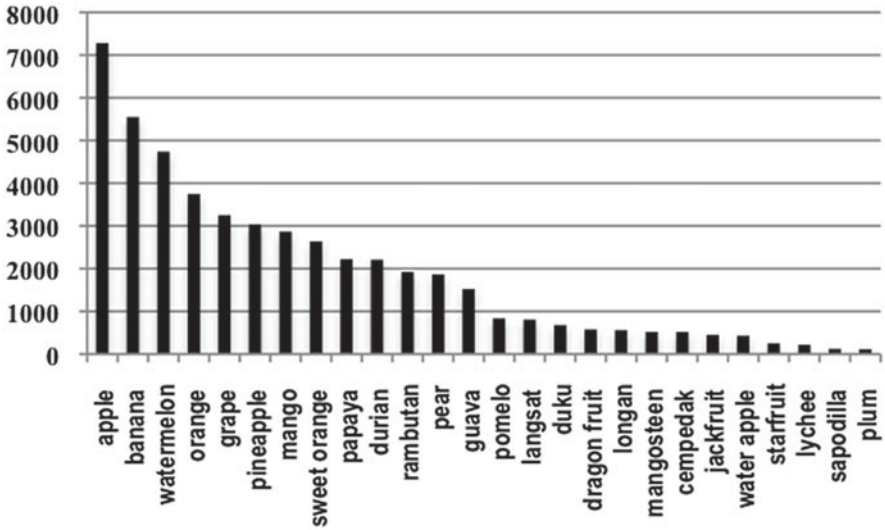
Fig. 55.1 Ranking of fresh fruit purchases by frequency of households (HES 2009/2010)

decisions of households. The first consumption function is for fresh fruits, estimated using the ordinary least squares (OLS) regression. The second consumption function is the estimation of tropical fresh fruits using logistic regression.

OLS has been applied to estimate the demand for processed and overall fruits [6, 7]. In the estimation for processed fruit and vegetable products in Peshawar [6], it is found that class I officers use more jams than class III employees while household income positively affects quantity demand for jam.

The OLS has not been applied to fresh fruits for Malaysia using the latest HES data. The OLS regression model for this study applies the most recent HES data (2009/2010) and is best explained using a logarithmic-linear form described as follows:

$$\text{Log } (\text{TOT\_FF\_EXP}_i) = \theta_{i0} + \theta_{i1}X_1 + \theta_{i2}X_2 + \ldots + \theta_{in}X_n + e_i \qquad (55.1)$$

where $i = 1,2,\ldots, n$ are observations, X_{in} is the nth explanatory variable for the ith observation, $\theta_i s$ is the parameters to be estimated and e is the error term.

The second step in the analysis is to model the preference for tropical fresh fruits using logistic model. While there are existing studies [8–11] applying some form of logistic model to the purchase of food items, none has been applied to fresh fruits, in particular, to explain preference for tropical fresh fruits using the HES data. The logistic model is used due to its simple application when the dependent variable is binary in nature [8]. Adapting from [8], the model is described as follows:

$$P_i = F(Z_i) - F(\alpha + \beta X_{ij}) = 1/[1 + \exp(-Z_i)] \tag{55.2}$$

where P_i is the probability of a household preferring tropical fresh fruits over nontropical ones. P_i depends upon a vector of independent variables, depicted as X_{ij}. $F(Z_i)$ is the value of the standard logistic density function associated with the value of index Z_i, which represents $\alpha + \beta X_{ij}$. The βX_{ij} in the above equation is a linear form of independent variables such that

$$Z_i = \log[p_i/(1 - P_i)] = \beta_{i0} + \beta_{i1}X_{i1} + \beta_{i2}X_{i2} + \ldots + \beta_{in}X_{in} + \varepsilon_i \tag{55.3}$$

where $i = 1, 2, \ldots, n$ are observations, Z_i is the unobserved index or log odds of option for the ith observation, X_{in} is the nth explanatory variable for the ith observation, β is the parameters to be explained and e is the error term. Z_i is the dependent variable, which is the logarithm of the probability that an option will occur.

B. Instrument and Methodology

The study uses a secondary dataset obtained from the national household expenditure survey (HES) for the period of 2009/2010. HES is conducted nationwide by the Department of Statistics (DOS) every five years for the purpose of gathering the pattern of consumption expenditure and updating the consumer price index weights for the nation. HES 2009/2010 data was collected through direct personal interview on urban and rural households residing in private quarters every alternate day for a month, where each household was given a record book to record its daily expenses for a month. Different samples were taken every month for 12 months during the survey to include seasonal variations in expenditures. The sampling design used to collect data is a two-stage stratified sampling design. The primary stratum consists of the states and federation regions within the country. The secondary stratum refers to selected towns and rural stratum within the primary stratum [12].

The data extracted from HES 2009/2010 for this study is the average monthly purchase value of all types of fresh fruits and socio-economic and demographic information of respondents. The first analysis to be conducted for this study is the descriptive summary of fresh fruits purchased and socio-economic and demographic information of respondents. This will provide an overview of the attributes of the respondents surveyed and the types of fresh fruits purchased. Using fresh fruit purchase data, the study aims to capture the information on the kinds of fresh fruits that are most purchased by respondents.

The next step involves carrying out econometric analysis in the form of regression estimation. For this purpose, the study takes two consecutive steps. In step 1 of the analysis, observations representing fresh fruit-buying respondents are used to estimate the demand function for fresh fruits. In this step, positive fresh fruit

purchase values are regressed against socio-economic and demographic factors of respondents using the ordinary least squares (OLS) regression model. Single equation models are often applied to estimate the demand for food [13, 14] as the method is simple and produces reliable estimates. The result of regression exercise in this study will depict the factors that may significantly affect the demand for fresh fruits.

Step 2 of the analysis aims to determine the factors influencing households who prefer tropical fresh fruits over temperate fresh fruits. This is to find out what is it that makes households purchase tropical fresh fruits. The estimation model is in the form of binary logistic regression. In order to carry out this model, households with total tropical fresh fruit expenditure greater than 50 % are assumed to prefer tropical fresh fruits over temperate ones. Similarly, those who purchase mostly temperate fresh fruits (with purchase rate of greater than 50 % from total fresh fruit purchase) are assumed to prefer these fruits over tropical ones. Binary logistic regression model is used for this study as the literature on the use of this model to estimate the demand for any kinds of food using a national budget data such as HES is not common. The binary logistic regression model has an advantage over other probability models. Among them is it does not require assumptions of multivariate normality and equal variance-covariance matrices across groups [9].

55.4   Findings and Discussion

A. Descriptive Summary of Variables

The HES 2009/2010 data have 21,641 samples from which 17,158 (79.28 %) of respondents reported to have made purchases on at least one fresh fruit during the sample period.

From the 17,158 respondents (households) who consume fresh fruits, observation size for the estimation of demand for fresh fruit purchases is reduced to 17, 075 due to outliers in terms of extreme values for total household spending. From the samples used for regression, mean fresh fruit monthly purchase for a fresh-fruit-buying household is RM25.31 (Table 55.2).

On average, there are four members in a household, with a total expenditure of RM2,332. This value is used to represent the total income of households as the income of household is not reported in HES survey. From all respondents, 21 % are those residing in the central region of Peninsular Malaysia which consists of federal territories of Kuala Lumpur and Putrajaya and the states of Selangor and Negeri Sembilan, 10 % in the southern region of Peninsular Malaysia (represented by Johor and Melaka states) and 10 % in the East Coast region of Peninsular Malaysia (Kelantan, Terengganu and Pahang states).

While East Malaysia (Sabah and Sarawak states) is included in the survey, the variable for this region was taken out during estimation as it was not significant. In

Table 55.2 Description of variables for OLS regression on fresh fruit buyers ($N = 17,075$)

Variables	Description of variables	Mean/percent	Std. dev.
LN_TOT_ FF_ EXP	Logarithm of average monthly spending on fresh fruits	–	–
TOT_MEM	Total members in a household	4.25	2.11
TOT_EXP	Monthly average of total household expenditure	2,332	1,725
CENTRL	Dummy, 1 = Central	21 %	.41
SOUTH	Dummy, 1 = Southern	10 %	.30
E_COAST	Dummy, 1 = East Coast	16 %	.36
NO_CERT	Dummy, 1 = no educational certificate	27 %	.44
SPM_V_ ONLY	Dummy, 1 = highest education is SPM or SPMV	31 %	.46
STPM_TO_ DEGRE	Dummy, 1 = highest education is STPM or above	20 %	.40
LEGIS_ PROF_TECH	Dummy, 1 = legislators, professionals and technicians	29 %	.45
PLANT_ ELEM	Dummy, 1 = production and elementary workers	20 %	.40
AGRI_KRAF	Dummy, 1 = agricultural and craft workers	18 %	.38
YNG_ MAX30	Dummy, 1 = at least 30 years old	13 %	.33
ELDR_ MIN51	Dummy, 1 = at least 51 years old	37 %	.48
MALE	Dummy, 1 = males	84 %	.37
BUMI	Dummy, 1 = Malay and the aborigines	64 %	.48
URBAN	Dummy, 1 = urban dwellers	71 %	.45

terms of occupation, Twenty-nine percent of respondents are legislators, profes-sionals and technicians, 20 % are production and elementary workers and 20 % are agricultural and craft workers. From all observations, 37 % are of age 30 and below and 37 % are of age 51 and above, depicting the majority of those buying fresh fruits are either the young adults or the elderly. From all respondents, 84 % are males. Sixty-four of the respondents are Malays and the aborigines and 71 % are urban dwellers.

B. Model Estimation

The binary value 1 which represents households who prefer tropical fresh fruits consists of 10,245 observations or 57.8 % of fresh fruit buyers. Nontropical fresh fruit buyers (6,044 respondents) represent 34.1 % of fresh fruit buyers. This information shows that the majority of households prefer tropical fresh fruits over nontropical ones. The remaining respondents are those who are indifferent in their purchase decision and are dropped from further analysis.

Table 55.3 Ordinary least squares regression estimates

Variables	Coefficient	S.E.	Sig.
Dependent variable: LN_FF_EXP			
TOT_MEM	.008	.002	.000
TOT_EXP	.000	.000	.000
CENTRL	−.070	.009	.000
SOUTH	−.106	.012	.000
E_COAST	.092	.010	.000
SPM_V_ONLY	.027	.010	.007
STPM_TO_DEGRE	.038	.013	.003
BUMI	−.136	.008	.000
LEGIS_PROF_TECH	.023	.010	.025
PLANT_ELEM	−.047	.010	.000
AGRI_KRAF	−.029	.011	.006
YNG_MAX30	−.084	.011	.000
NO_CERT	−.022	.010	.022
ELDR_MIN51	.079	.008	.000
URBAN	.029	.008	.000
MALE	.034	.010	.000
Constant	.997	.016	.000
Adjusted R^2	.146		
Durbin-Watson	1.707		
Condition index	13.80		
Sample size	17,075		

Table 55.3 explains the results of OLS regression for fresh fruit buyers. Regression model takes the estimation with the most satisfactory outcome (the log-linear functional form) after attempting for various other forms such as linear, linear-log and expenditure share model. Goodness of fit of model based on adjusted R^2 is 0.146, showing that 14.6 % of change in fresh fruit purchases can be explained by the regression line. This value of adjusted R^2 is acceptable given that the data is cross section in nature.

All independent variables used in the model are significant at levels between 1 and 5 %, although the impacts are relatively small. For instance, a one-unit increase in total household member will increase fresh fruit purchases by 0.008 unit. Positive relationships are found between fresh fruit purchases with number of members in a household and total monthly expenditure. This means that household size, the presence of an elderly in the household and level of household income (represented by household expenditure) positively affect fresh fruit purchases. This is expected as the elderly are more concerned about their health than younger adults and thus tend to consume more healthy food such as fresh fruits.

Income and household size reflect the need and ability of households in purchasing a household item. Education level and living in rural or urban can be linked together. The higher the education level one gets, the greater the chance of the

person living in an urban neighbourhood as there are more job opportunities for those with more education in urban areas.

There is a tendency for those with better education to consume more of fresh fruits than those with less education. The effect of urban factor on fresh fruit purchases could be due to accessibility and availability of fresh fruits in various types of markets and outlets.

Regional factor shows that those living in the East Coast tend to purchase more fresh fruits while those in the Southern and Central region tend to purchase less fresh fruits. Southern and Central regions are considered more urban than the East Coast region based on the types of economic development of these areas. This factor does not support the findings that urban people consume more fresh fruits than rural ones. The different regional effect on fresh fruit purchase is probably due to the lifestyle of the people in the Southern and Central regions which is assumed to be more hectic, and thus they tend to consume more of processed and convenient food and less on fresh fruits which at times need more preparation in order to consume. The finding also suggests that males tend to consume more fresh fruits than females. Based on racial factor, the Malays and the aborigines are less likely to purchase fresh fruits than other races.

Table 55.4 reports the binary logistic regression result and predictive accuracy for the preference of tropical fresh fruits. To apply a logistic analysis on data, the original data of purchase amounts for tropical and nontropical fresh fruit purchases is compared. Dependent variable is a dummy variable, where 1 = preference for tropical fresh fruits and 0 otherwise.

Respondents preferring tropical fresh fruits are those who buy only tropical fresh fruits and those with purchase share of tropical fresh fruit greater than that of nontropical fresh fruits. Respondents who are indifferent over tropical or nontropical fresh fruits (having the same percentage of purchase share) are dropped from further analysis.

Model is acceptable based on percent of correct predictions that is moderately high at 68.6 %. Factors significantly affecting the probability of a respondent preferring tropical fresh fruits in the positive direction include age of respondent, total monthly household expenditure, number of people in a household, households coming from the East Coast region and respondent being a blue-collar worker, specifically production or elementary worker. The result on the East Coast people being more inclined to consume fresh fruits is supported by the finding that these people are also inclined to consume tropical fresh fruits. Tropical fresh fruits are probably more easily accessible to rural areas where the tropical fruit trees are mostly grown.

Other significant variables albeit depicting the negative relationship of probability of preferring tropical fresh fruits include household coming from the Northern, Central and Southern regions, respondent working in a white-collar job and coming from various education levels and respondent who is a Chinese and is coming from an urban area. As for the urban respondents' tendency to prefer buying less of tropical fresh fruits, especially those from the Northern, Central and

Table 55.4 Logistic estimates for tropical fresh fruit purchase decision

Variables	Coefficient	S.E.	Sig.
AGE	.003	.002	.078
TOT_EXP	.000	.000	.000
TOT_MEM	.031	.009	.001
NORTH	−.110	.049	.024
CENTRL	−.143	.052	.006
SOUTH	−.723	.065	.000
E_COAST	.458	.062	.000
WHITE_COL	−.107	.074	.148
BLU_COL	.160	.069	.021
NOCERT_PMR	−.314	.083	.000
SPM_V_ONLY	−.436	.089	.000
STPM_TO_DEGRE	−.600	.097	.000
TECH_CLER_SERV	.145	.058	.012
MALE	.046	.050	.361
BUMI	.292	.060	.000
CHNSE	−.874	.064	.000
URBAN	−.297	.044	.000
PLANT_ELEM	.067	.061	.268
Constant	1.160	.150	.000
Cox and Snell R^2	.125		
Nagelkerke R^2	.171		
Log likelihood	19,311.179		
Sample size	16,289		
Predicted group membership (%)	Purchase mostly tropical fresh fruits		41.9
	Purchase mostly nontropical fresh fruits		84.4
Percent of correct predictions			68.6

Southern regions, this could be due to their preference for temperate fresh fruits, which are widely available and accessible in shops and markets around cities.

Education level does not seem to explain purchase behaviour of tropical fruits. Tropical fresh fruits are less preferred by the Chinese and people living in the urban area; however, they are preferred by the Malays and the aborigines.

The regional factor is difficult to explain as it does not show the same relationship with purchase behaviour as the latter does with the urban factor. Regional areas in the country can be broadly described through their level of economic development, which can also be categorized from the perspective of urban and rural categories.

55.5   Conclusion and Recommendation

The understanding of consumer purchase behaviour for fresh fruits in general and for tropical fresh fruits in particular is necessary if the local fruit industry in Malaysia is to be improved and marketed effectively. Findings of the study suggest that in order to improve chances of people buying more of tropical fresh fruits, promotional efforts should be geared towards those with the higher income, larger families and those of middle age. Further research should be carried out to determine why tropical fresh fruits are not favoured in the Central, Southern and Northern regions, as these areas have large potential for the fresh fruit market based on income level and accessibility of products. More research needs to be carried out to understand the underlying reasons of people of different races in consuming fruits.

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Chapter 56
Impact of Demographic Factors and Work Environment on Fertility Rates in Malaysia

Nurfarahain Mohd Saleh and Geetha Subramaniam

Abstract Decreasing fertility rates in Malaysia has been a worrying situation in the last four decades. If there is no action taken in the future, Malaysia will face the problem of labour shortage and ageing population. The main purpose of this study is to examine whether demographic and working environments have an influence on the fertility rate of women in Malaysia. This study uses primary data analysis from 200 respondents from two states in Malaysia, Kelantan representing a rural state and Penang representing an urban state. The method of analysis used was descriptive statistics, mean and cross tabulation. The findings indicate that most women who are in a younger age group, who have attained higher educational level, earn a high monthly household income and live in urban areas are more likely to have less number of children. In terms of working environment, women who work in the informal working sectors, because of their flexibility at the workplace, tend to have more children. Furthermore, spouse's highest educational level and spouse's type of employment do influence the decision-making on the number of children. For women who are involved in the informal sector, there is a significant impact on the number of working hours per week and the number of children, whereby lesser working hours per week influences the decision on the number of children to have. Findings show that Malay women tend to have more children as compared to Chinese and Indian women.

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56.1   Introduction

According to the World Bank [1], total fertility rate can be further defined as the number of children that would be born to a woman if she were to live until the end of her childbearing years and bear children in accordance with the current age-specific fertility rates. There are numerous studies conducted on the issues related to women and fertility. Based on the figures from the Department of Statistics [2], it is reported that the fertility rates in Malaysia have been decreasing from year to year. Many studies have been done in order to determine the factors that influence the decreasing fertility rate. Education, women's employment and sociocultural and financial situation are factors that most significantly affect the decreasing fertility rate in society nowadays. Those findings, however, are too general. More in-depth study and consideration of different angles are needed. In fact, in Malaysia, as the population is varied by religion and strata, this study focuses on these areas to highlight the issues of decreasing fertility rate. Therefore, this study will focus on the selected independent variables that will be grouped into two main categories, namely, demographic variables and working environment, where fertility is measured using the number of children.

56.2   Background of Study

1. Trends in Fertility

The latest report by the World Bank [1] reveals that fertility rates across the world have substantially declined in recent years. The world's total fertility rate (TFR) has fallen significantly, and in 2011, it was close to replacement level [1]. In addition, nearly 50 % of the world's population now lives in countries with below replacement level TFRs. That number is likely to increase significantly in the coming years. The World Bank [1] also states that the TFR for China, the largest population in the world, is already substantially below replacement level. The TFR for India, the second largest country in the world, is likely to dip below replacement in the next few years. Falling fertility, if continues, will lead to falling working population and also total population. Countries with falling populations already account for nearly 20 % of the world population. This rapid decline in human fertility has been due to contraception, sterilisation and abortion, the provisions of which have been generously supported by the government, while in western countries, lower fertility has been achieved without coercion but by simple appeal to the selfish nature of man [3].

In China, decisions about fertility have been imposed on the population by the government. In most parts of the world, there is little evidence of a worldwide population 'explosion'. The world's total population is currently increasing by 1 % per year. According to the United Nation's low fertility population forecast, the

world's population will begin to fall between 2040 and 2045 [3]. Moreover, according to [3], declining human fertility rates and population reduction are already having severe consequences in some countries, and the situation will continue to deteriorate.

Fertility decline not only has an impact on the future labour supply of the country but in addition, as [3], states that if TFR further drops below replacement level, it will lead to a shrinking population and as a result will become a threat to many industries that rely on population growth. The United States, Italy and Japan are examples of countries that have TFR below replacement level.

56.3   Literature Review

Studies in the developed nations have shown how demographic factors affect fertility rate. For example, a study by Milligan [4], using a probit estimator on individual level data, found that an increase in family income of USD 10,000 was found to increase the probability of having a child by only 1.75 percent. In another study in Poland by Matysiak [5] who used labour force indicators such as labour force participation rate, employment rate and unemployment rate found that women are strongly motivated to participate in paid employment. The study showed that children have a strong and clearly negative impact on women's employment.

Another research done in Australia by Blacklow [6] found that women's wages were generally found to have a significant and negative effect on fertility. In another study of fertility rates in Taiwan by Narayan [7] in the period between 1966 and 2000, the co-integration test showed the autoregressive distributed lag model for long-run and short-run elasticity. The key explanatory variables in fertility model included real income, infant mortality rate, female education and female labour force participation. The study found that female education and female labour force participation are found to be the main determinants of fertility rate in Taiwan in the long run, and the results are consistent with the traditional structural hypothesis.

56.4   Methodology

In this study, a survey was carried out in an attempt to investigate whether demographic and working environment has an effect on the number of children women have in Malaysia. A self-administered survey questionnaire was given to 200 women from rural and urban areas in Malaysia, where 100 were from the urban sector and 100 were from the rural sector. Purposive sampling method was used where the first criteria was married women with young children. Further to that, quota sampling in terms of areas of living was conducted where respondents were limited only to the states of Kelantan and Penang. The reason why these two states were chosen was because latest statistics show that Kelantan has the highest fertility

rate and Penang has the lowest fertility rate [2]. Due to socio-economic factors, in this study, Kelantan was designated as rural while Penang as urban.

The questionnaire was divided into three main categories. Section A consisted of questions on the demographic profile of the respondents, Section B on family responsibilities and personal reasons for having children and Section C on working environment. However, for this investigation, analysis was done using demographic and working environment data from sections A and C only.

Data was analysed using SPSS version 20 with analysis based on descriptive statistics such as frequency counts, means and cross tabulation and inferential statistics to provide adequate scope for drawing logical conclusions on the reasons for women's decreasing fertility rate. Through cross tabulations, it was possible to capture some of the inferences on women's decision-making behaviour.

56.5   Findings and Analysis

1. Demographic Profile

All the respondents chosen in this study are currently working and have children. One hundred respondents are from Penang, and the balance 100 respondents are from Kelantan. The working environment profile was divided into two categories since the respondents have a different working background, namely, formal working sector and informal working sector.

The respondents were quite fairly distributed in terms of age group. A majority (45 %) of the women are in the age group of 30–39 years. Another group (31 %) are women in the 40–49 years age group. Other (15 %) women are from the age group of 21–25 years and (10 %) from the age group of 50–59 years old.

In terms of educational level, the respondents are quite evenly distributed where 33 % of the women are degree holders, 31 % of them are diploma holders and the balances are the Sijil Pelajaran Malaysia (SPM) certificate holders (or equivalent to 'O' levels). The spouse's highest educational level also shows that 34.5 % of them are SPM holders, 32.5 % are diploma holders and 25.5 % are degree holders. Some of these women and the spouses have postgraduate and professional degrees.

In order to obtain a clearer view of this study, we categorised the primary and secondary education level as the lower educational level, whereas diploma, degree, postgraduate and professional degree as the higher educational level. Therefore, from the descriptive statistics, it shows that 30 % of the respondents are in the lower educational level, and the balance 70 % has obtained the higher educational level. There are similar descriptions for the spouses' educational level whereby 36 % of them are in the lower educational level and the remaining 64 % of the respondents' spouses had obtained higher educational level.

As for the income level, nearly half of these women (45.5 %) are in the lowest income group of RM1001–RM2000 income group. The spouse's personal income

shows that 53.5 % of them are in the RM2001–RM3000 income group. Basically, nearly half of these women (48 %) are in the household income group of RM4001–RM6000. A majority of the respondents (65 %) are Malays, 27.5 % of the respondents are Chinese and the remaining 7.5 % of the respondents are Indians.

As for the ethnic composition of the respondents, care was given through purposive sampling in order to obtain the sample as close as possible as the Malaysian population composition. A majority (65 %) of the women are Muslim, 6.5 % are Buddhist, 5.5 % are Hindu and the remaining 13 % of the respondents are Christians.

Most of the selected women in this study come from urban areas (77.5 %), and the remaining 22.5 % are from rural areas in the two states. Therefore, from the table, it indicates that most of the respondents are currently staying in the urban areas of the states.

2. Factors Influencing Fertility Rates of Women in Malaysia

(a) Demographic Factors

Based on Table 56.1, a majority (45 %) of the women are in the age group of 30–39 years old. The results show that the younger women tend to have fewer children (72 %), whereas the older women in the age group of 40–49 years old and 50–59 years old tend to have more children, (71 %) and (84 %), respectively.

A study by Lehar [8] had stated that one of the reasons the fertility rates are decreasing is because of the increase in urbanisation. It shows that women nowadays are more technologically wise than the older generation. The age gap between them is huge and that would lead to different perceptions about having more children and a large family. Age significantly does influence the number of children one has. In some circumstances, women in Malaysia literally delay childbirth because of their career, education or perhaps due to the age of marriage.

In this study, it was found that age of marriage is not significant. This finding is in contrast to the previous research by DiCioccio and Phanindra [9] whose study done in the European Union (EU) countries found that age had a significant influence on fertility rates; this could be possible because most of the women in the sample are married and in the age group of 21–25 years old. A majority of the women (88 %) have lower educational level. In this study, the primary and secondary education levels are considered as lower educational level, and diploma, degree, postgraduate and professional degree are grouped as higher level of education. From the findings, it shows that the lower-educated women (88 %) tend to have more children than 48 % of women with a higher educational level that have two or fewer children. It is a similar situation for the spouses, whereby a majority of them (86 %) are lower educated and have more children.

Self's and spouse's highest educational level are found to be significant. This conforms to previous studies by Blacklow [6], Ying [10], and Hashim [11] which

Table 56.1 Demographic profile of respondents and Pearson chi-square test

Variables	Percentage (%)	Asymp. sig (2-sided)
Age	100	0.000
(a) 20–29 years old	15	
(b) 30–39 years old	45	
(c) 40–49 years old	31	
(d) 50–59 years old	10	
Self's highest educational level	100	0.000
(a) Lower education	30	
(b) Higher education	70	
Spouse's highest educational level	100	0.000
(a) Lower education	36	
(b) Higher education	64	
Monthly household income	100	0.042
(a) RM1000–RM2000	1	
(b) RM2001–RM4000	23	
(c) RM4001–RM6000	48	
(d) RM6001–RM8000	13	
(e) RM8001–RM10000	7	
(f) Above RM10000	9	
Ethnicity	100	0.000
(a) Malay	65	
(b) Chinese	28	
(c) Indian	8	
Religion	100	0.000
(a) Islam	65	
(b) Buddha	17	
(c) Hindu	12	
(d) Others	13	
Area of living	100	0.048
(a) Rural	23	
(b) Urban	73	

had significant results based on women's education. Furthermore, Narayan [7] declared that female education and female labour force participation are found to be the main determinants of fertility in Taiwan in the long run. Higher education is always a dilemma for women whereby they need to choose between self satisfaction and family and at the end, they delay childbirth and cause low fertility rates. Education is also strongly related to income whereby it is believed that the more educated a person, the greater the income he/she will receive in employment. But somehow, in this study, this is contradictory as the educational levels do not reflect their income level. This is because most of the respondents are literally businesswomen and they own their businesses, and basically, the jobs that they are involved in do not need any special skills that they need to apply. Moreover, women who run

a business in these states most probably inherited the business from their family. Hence, their businesses are well known and already have many regular customers.

Most of the families in those two states earn an income around RM2001–RM4000 and RM6001–RM8000 that resulted in 76 % and 77 % of the respondents having more children, respectively. Fifty-four percent of the families that earn RM8001 and above recorded fewer number of children.

Monthly household income significantly influences the number of children. These findings conform to other research, for example, Blacklow [6] in his study found that women's wages were generally found to have a significant and negative effect on fertility. Similar findings in the study in Poland by Matysiak [5] showed that children have strong and clearly negative impact on women's employment.

This study focuses on two different states in Malaysia where Penang is identified as an urban-based state since it recorded a high urbanisation rate. On the other hand, Kelantan is considered a state that recorded the lowest in the urbanisation level [2]. By having this income gap, it indirectly reflects the standard of living between these two states. People in Penang are more likely to depend on the manufacturing and industrialised sectors, but on the other hand, the Kelantanese are more towards agriculture- and service-based sectors. Therefore, the difference in terms of standard of living might impact their ability to earn differently as well. Following the composition of population in Malaysia, the findings show that Malays have the higher number of children (74 %) compared to the Chinese (64 %) and Indians (67 %). Ethnicity and religion were found to be significant factors.

Research done by Ying [10] states that empirical evidence on the determinants of fertility behaviour in Peninsular Malaysia shows that the sharp decline in Chinese and Indian fertility concurs with cross-section evidence that women's education and market work have a negative impact on fertility. A study by Hashim [11] found that the progress in women's education and participation in the public sphere and rapid urbanisation of the Malay society within the past four decades caused a decline in fertility among Malay women. The study also found that sociocultural factors, including religion, do influence the decision on the number of children to have. This conforms to findings in this study; Malays tend to have big families but not the Chinese and the Indians who prefer small families.

Another significant variable is living strata. Most of the respondents who have more children (76 %) come from the rural side of the two states. On the other hand, 41 % of the respondents who come from urban areas of the two states tend to have a lesser number of children. This variable is significant at 5 % level of significance. Study by Hashim [11] confirmed the findings whereby urban and rural backgrounds do influence the decision on the number of children to have. Perhaps, in this study, even though the selected women were from urban areas of Kelantan, the level of the urbanisation is not the same as in Penang.

Table 56.2 Working
environment profile of
respondents by sector

Working environment profile		
	Frequency (N)	Percentage (%)
	200	100
Formal working sector	77	38
Informal working sector	123	62

(b) Working Environment

Table 56.2 shows the working environment that is divided into two sectors which are the formal working sector and the informal working sector. A majority (62 %) of the respondents are working in the informal working sector since most of these women are involved with wholly owned businesses and personal services. As for the formal working sector, most (80 %) of the respondents are working in the government sector. Almost half of the spouses (48 %) are working in the government sector, and 39 % are working in the private sector.

More than half (62 %) of the respondents are involved in the informal working sector. On the other hand, 38 % of them work in the formal sector. Further to that, cross tabulation shows that 72 % of the respondents who work in the informal working sector tend to have more children, and 52 % of them who work in the formal sector have lesser number of children. This shows that respondents who work in the informal sector have flexible time to juggle between work and family. They have more time to take care and manage their family than formal sector workers. A previous study by Hashim [11] also stated that women who need to cope with work and family often felt guilty, and some had to decline job promotion and forego opportunities for getting further academic qualifications.

(c) Formal Working Sector

Table 56.3 shows that the type of employment of women and their spouses has a significant influence in this study. Respondents who worked in the government sector tend to have more children (52 %) than those who worked in the private sector. More than half (64 %) of the spouses who worked in the private sector have fewer children. On the other hand, the spouses who worked in the government sector tend to have more children (65 %). This finding conforms to research done by Risse [12] where the results were significant. Furthermore, Ermisch [13] states that in particular, women employed in professional positions tend to wait longer between marriage and the birth of their first child. He also stated that in single-earner households with only one male wage earner, if the male wage rises rapidly and the cost of children remains constant, that family will have more children.

Another interesting finding in this study is that respondents who have stressful working conditions tend to have fewer children. From the results, more than half (57 %) of the respondents are stressed, and 55 % are a little stressed with their working conditions. Working conditions have a significant relationship with the

Table 56.3 Working environment

Working environment			
Variables	Value	df	Asymp. sig (2-sided)
Formal working sector			
Self's type of employment	12.025	2	0.002
Spouse's type of employment	12.849	3	0.005
Working conditions	14.502	4	0.006
Childcare facilities	13.361	2	0.001
Flexible working arrangements	12.004	2	0.002
Informal working sector			
Working conditions	13.670	4	0.008
Number of working hours per week	13.237	2	0.001

number of children. In this study, various types of employment are examined; therefore, it might also relate to the workload and the environment. Perhaps the private sector and the government sector might not have the same amount of workload. The size of the company should be considered as well. The bigger the company, the more problems it may lead to. If the company is smaller, it may lead to a better management and a comfortable environment.

Childcare facility is an important matter nowadays for working mothers. However, in this study, it was found that 63 % of the respondents who have childcare facilities in the workplace tend to have fewer children. On the other hand, 52 % who do not have childcare facilities in the workplace have more children. Even though there are childcare facilities provided at the workplace, the employees may still need to pay. Therefore, there is still a high direct cost associated. Furthermore, the childcare centre perhaps might operate during office hours; therefore, it will be an issue for a respondent who works during the night shift. The childcare facilities are significant and do affect the decision-making of having children, but as the cost of childcare and the reliability were not tested, conclusive results could not be made on this factor. For example, in the case of rural Kelantan, most of the respondents have their relatives or parents to babysit their children, and besides, they will not worry much in terms of safety and security because most of the time, the children will be surrounded by people they are familiar with.

The next factor is flexible working arrangements (FWAs). In this study, FWAs include flexi hours, permanent part-time work, working from home, teleworking, job sharing and compressed week. FWAs would give workplace flexibility and work time flexibility to the respondents. The flexibility of time is important at the beginning of children's growth since infants need extra care. Seventy percent of the respondents who have FWAs tend to have more children since they have extra time to manage their work and family responsibilities. Perhaps, FWAs in a formal sector do have a significant relationship with the number of children.

(d) Informal Working Sector

The working conditions of the informal working sector for those respondents may be similar to the formal working sector. Seventy-eight percent of the respondents who have little stress in their working conditions tend to have more children. Thirty-two percent of respondents who have a stressful work environment tend to have a lesser number of children. Perhaps, the mental and emotional state of mind of women could influence their decision-making on the number children.

The number of hours worked per week is also one of the variables in this study. Since the informal working sector does not have fixed and scheduled time of working, it is interesting to know how the number of working hours per week will affect the number of children. This study found out that 81 % of the respondents who work within 60 h and below weekly have more children. Seventy percent of the respondents who work more than 61 h per week have a fewer number of children. Therefore, from the findings, it shows that working hours do have a significant effect on the number of children.

56.6 Conclusion

Overall, the findings from this study indicate age, self's highest educational level, spouse's highest educational level, monthly household income, area of living and ethnicity have a significant impact on the fertility rates of women. On the other hand, the working environment variable shows that for formal working sector, self type of employment, spouse type of employment, working conditions, childcare facilities and flexible working arrangements are significant. For the informal working sector, working conditions and the number of working hours per week also show the significance they have on the number of children. As this study covers only Kelantan and Penang, further research should also explore the other states in Malaysia to represent the fertility trend of the country.

56.7 Implications and Policy Recommendations

The results of this study are advantageous to policy makers, employers and the society on the whole. It was found that the decline in fertility rates in a country will lead to labour shortage and ageing population. As stated by Lehar [8], age structure of the population has significant impact on the economy. This study will be able to assist policy makers to create good, effective policies and programmes to cater for women's fertility as well as in helping women balance their career and family. The findings of this study will provide input for policy formulation by the Ministry of Human Resource which is looking seriously into work policies for women such as

flexible working arrangements. These findings should also provide input to the Ministry of Women, Family and Community Development which has encouraged fertility programmes for women. Furthermore, findings of this study could be used as a platform by other researchers to engage in a more detailed study.

The first policy recommendation here would be the provision of childcare. Policy makers should thoroughly consider providing childcare with more scrutiny on cost, infrastructure and reliability. The cost of childcare should be more affordable based on the living area and also be more trustworthy. Only then will the women be able to concentrate on their job and ensure productivity at the workplace. Perhaps, it can be proposed to the government to plan a 'Childcare 1Malaysia' programme along the lines of 'Klinik 1Malaysia', 'Restaurant 1Malaysia' and 'Kedai rakyat 1Malaysia'.

The second recommendation involves policy makers and employers with regard to working arrangements. In the study by Subramaniam et al. [14], they suggest that working arrangements may be one method to help women stay in the labour force since it is a more family friendly method. Flexible working time, working from home and part-time work may provide married women with children who require greater parental time to balance between career and family. Furthermore, working women have issues of childcare and elderly care since women are closely related to the responsibility of taking care of children and the elderly. This gives rise to some underlying issues which are of great concern and needs immediate action.

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Chapter 57
Transformational Leaders and Organizational Performance

Rashidah Kamarulzaman and Saadiah Mohamed

Abstract The study is a preliminary work in examining the characteristics, attributes, and behaviors of transformational leaders in changing the values of employees. Effective leaders consistently initiate others to achieve the organization's visions and missions and improve the organization's value. The behavior and attitudes of transformational leaders show the value of the organization. The research objective is to find the transformational characteristic components with regard to organizational performance. This study is to show the importance and intrinsic theoretical and empirical evidence of this matter to propose future research. This finding will be incorporated as one of the main variables in my current study on the influence of intellectual capital and organizational performance. Thus, this paper has limitations from the empirical approach perspectives. Finally, the outcome of this work promises to be of great interest to regulators and policy makers in providing an assessment of the success level of transformational leaders in Malaysian context.

Keywords Transformational leaders • Intellectual capital • Transactional leaders

57.1 Introduction

A leader is not only to manage financial resources efficiently but also to manage both tangible and intangible resources in order to explore the fundamental contributions that could increase sustainability. The leaders who influence the creation and development of intellectual capital are known as transformational leaders. Intellectual capital is important to any organization due to the decision-making purpose. Intellectual capital plays a vital role before the investment analyst can

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make any investment decisions. Intellectual capital is vital in attaining and sustaining competitive advantage for companies. Intellectual capital should be controlled from the strategic level to identify, measure, and direct intangible resources toward achieving the firm's competitive advantage. Intellectual capital is considered as the organization's intangible resources and assets converting value into new process, products, and services. Thus, intellectual capital is the value driver of any organization. Intellectual capital is comprised of three major components [1].

Human capital, structural capital, and relational capital are the main three components of intellectual capital. Human capital consists of the employees of the organization, structural capital is related to the internal structure of the organizations, and relational capital referred to the relationship of the organization with the customers and suppliers as well as the influence of government and industry network. In ensuring that the company achieves its competitiveness and sustainability, the company needs to treat each component of intellectual capital as a unique and idiosyncratic property [2]. Human and relational capital plays a vital part in the new firm's development, and structural capital is comparatively significant, as it is the foundation of the companies [3]. Thus, investing in human capital can subsequently strengthen both the structural and relational capital.

Previous studies showed evidence of dynamicity between intellectual capital components, and each component is interrelated successfully which is a major factor for company's value. The interrelationship between the components affects company's short- and long-term performance, results, and productivity. Thus, it is a greater demand for the companies to have a leader to better manage the resources and knowledge of the components.

A good leader must possess certain characteristics in order to drive the employees toward achieving the company's goals. Among others, leaders should be visionary, creative, risk takers, and knowledgeable. Those characteristics have been the hallmarks of previous success. [4] stated that the behavior of the leaders shows the real values of the company. The real value of the company is often stated in the company's mission and vision statement. Leaders are responsible in encouraging employees in achieving these stated values. Good leaders lead the employees by displaying good examples, facilitating the employee's acceptance to change, and encouraging the employee's involvement in the organization. In addition, these leaders should equip themselves with the business, industry, and economic knowledge both local and global. A good leader is capable and has the ability to transform the employees and subsequently the organization. All of these are among the characteristics for the transformational leaders.

Both intellectual capital and transformational leaders have a significant impact toward the organization's performance. Transformational leaders ensure that the organization achieved the goals through managing available resources including the employees effectively. Therefore, the objective of this paper is to find the characteristics of the transformational leaders that can lead to improve the performance of the organization. The research findings promise to be of great interest to regulators and policy makers in providing an assessment of the success level of transformational leaders in Malaysian context.

57.2 Literature Review

Transformational leadership is defined as a process that changes and transforms people and social systems [5]. Transformational leadership creates changes among the followers or employees and subsequently transforms the people through emotions, values, ethics, standards, and long-term goals. Compared to transactional leadership, the transformational leaders have a role of facilitating employee's acceptance to change by leading through example and encouraging employee's involvement. Transactional leadership is more toward the "command and control" style. Employees under the transactional leader's interest focused on what the leaders want [6]. These employees do not have the ability to innovate, as the leaders did not give them the opportunity. Transactional leaders focus on the financial goals rather than on the development of the human capital. Due to this, the employees do not have a trust relationship with the transactional leaders.

The sustainability of organizations in the knowledge economy era, meaning the leadership style of the leaders in the organization, should change from transactional to transformational leadership. Transformational leaders equipped themselves with knowledge and skill capabilities to spearhead an organization. Organization goals are imprinted in the company's vision. Led by company's leadership, this vision will eventually transform the organization, and subsequently the organization will achieve better performance [7]. These leaders have the ability to adapt to changes resulted from reacting to their internal as well as external environment.

Charisma or idealized influence, inspirational motivation, intellectual stimulation, and individual consideration are the four factors of transformational leadership [8]. Charismatic or idealized influence leaders must have the capabilities of motivating and stimulating employees to contribute to the organization's performance. Inspirational motivation is whereby leaders motivate employees toward achieving the organization's visions. Under the intellectual simulation, leaders encourage employees to be more creative and innovative. Finally, with individualized considerations the leaders support the employees by giving personal attention and appreciation toward them. This will ensure employee loyalty as the leaders spent time with them and promote a healthy environment to the employees.

All of these factors are considered as effective leadership dimension from the original dimensions of implicit theories. An example of a charismatic leader who strives in motivating the employees, is a risk taker, and positively reacts to changes is Mr. Kamardy Arief, who manages to transform the BRI Bank in Indonesia from suffering high losses due to increasing default risk when he was appointed as president director in 1983 [9]. It was reported that Mr. Kamardy Arief has the characteristics of a transformational leader through changing the organization culture of the BRI Bank by instilling the good example to the employees and having a mission of transforming BRI Bank to become a viable commercial bank in Indonesia.

On the other hand, Research In Motion (Blackberry) failed to capture the opportunity to transform the organization. This is due to the reason that the CEO,

Thorsten Heins, does not think that change is necessary. He refused to change the strategy of RIM even when the companies are hitting below 10 % of the share market in 2012. After joining RIM, Heins backed up the Blackberry 10. However, the launched of Blackberry 10 is delayed and iPhone has hit the market 5 years prior to the launching of Blackberry 10. Thus, it failed to capture the share market [10]. Based on these two examples, a conclusion can be derived that leaders who are adaptable to market changes would enjoy significantly as compared to its counterparts. Adapting to changes falls under the idealized influence characteristics. Transformational leaders promote personal and organizational change. They are the change agent within the organization. Thus, they assist the employees to accept change and use them to increase the organization value.

Previous literature examines the relationship between transformational leaders and organizational performance and showed a positive relationship [11]. Transformational leaders have the ability to transform the organization in achieving improve performance. Organizational transformation explains the fundamental changes of organizational pattern activities. Lowe et al. [12] state that the aspects of transformational organization are the following:

1. Rapid and discontinuous change of organizational activity contributed to a large majority of organizational transformations.
2. Fundamental transformations will not be achieved by small changes in strategies, structures, and distributions of power.
3. Chief executive officer succession and environmental changes influence transformations.

Organizational transformations promote exploring new market opportunities and use the opportunities to strengthen the organization position. The transformation objective is to increase business value and performance. In order to achieve organizational transformation, the organization is in urgent need of a transformational leader. Transformational leaders drive, influence, and motivate the employees toward improving the effectiveness of the organization. This paper is hoping to find the components from the major characteristics of transformational leaders. Thus, a preliminary interview with the practitioners in the financial and banking industry is crucial for the study.

57.3 Methodology

The research aims at analyzing the main characteristics of transformational leadership in the Malaysian business environment especially among the Islamic banks and the contribution of the characteristics toward the organizational performance. The methodology used within this investigation is divided into two methods. This preliminary study was conducted on three respondents, two being the scholars and one the practitioner, in justifying the characteristics of the transformational leaders. The selection of the respondents was made due to their expertise and experience in

the field. The study is using the interview method, as the information has not been sufficiently and fully researched as yet. The data collection phase included semi-structured formal interviews, addressing the transformational leader aspects, with the intellectual capital component being considered. A script was designed prior to the informal setting interview with scholars and practitioners. The data collection tool contained questions in the form of statements. The informal interview was conducted in between the months of August and September 2013. The interview on all the respondents was made on semiformal and open-ended questions. This will allow the flow of information to be able to be captured on explaining the transformational leader characteristics. The question from the interview is structured into variables to be used in the future research. The findings from the interview sessions will be discussed in the next session.

57.4 Results

Based on the preliminary interviews, the respondents give the following response on the components of transformational leader characteristics. Two of the respondents are actively involved in numerous researches in the banking and financial industry, both conventional and Islamic. One respondent is a practitioner and holds a higher position in one of the banks in Malaysia. Table 57.1 is the summarized of the transformational leader characteristics.

   Summarizing the interviews, a transformational leader's main characteristics are a skilled, experienced, and knowledgeable person, a risk taker, a visionary, and a change agent. Transformational leaders motivate the employees to respond positively toward organizational goals. Unlike the transactional leaders, in competing in the knowledge economy, the main strong attribute is to be able to enterprise the human capital. Knowledgeable transformational leaders use the available resources in ensuring the organization achieves sustainability. The findings demonstrate how the leaders' personal attributes and behaviors resonate in their organizations and among the followers or employees. These findings will be used to construct questionnaires for the purpose of future study in analyzing the relationship and impact of transformational leaders and Islamic banks' performance.

57.5 Conclusion

With the advancement of technology and fierce market competition, there is a need for transformational leaders to transform the organization. The organization needs to integrate transformational leadership and organization development concept in strengthening the value of the organization. The aim of the paper is to demonstrate the importance of transformational leadership in the process of increasing the organizational intellectual capital. Previous studies on investigating the relationship between transformational leaders and organization performance show a positive

Table 57.1 Components of transformational leader's characteristics

Items	Respondents			
	R1	R2	R3	Total
Charisma or idealized influence				
Change agent	✔	✔	✔	3
Risk takers	✔	✔	✔	3
Enterprising human	✔			1
Inspirational motivation				
Visionary	✔	✔	✔	3
Courage			✔	1
Integrity		✔	✔	2
Respect for followers	✔		✔	2
Intellectual stimulation				
Knowledgeable	✔	✔	✔	3
Experienced leaders	✔	✔	✔	3
Entrepreneurial skill	✔	✔	✔	3
Individual consideration	✔	✔	✔	3

relationship. However, there is still no universal characteristic of transformational leaders that contributes to this finding. Henceforth, future research work will use the preliminary finding of this work. During the preliminary interview with the scholars and practitioners, the result is hoped to be used in further studies by the researcher. The findings from the study yield both managerial and practical implications. Understanding leadership behavior is able to enhance the core competencies of leaders in the industry. Knowing the leader's traits and personal characteristics has a meaningful impact on the employees.

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